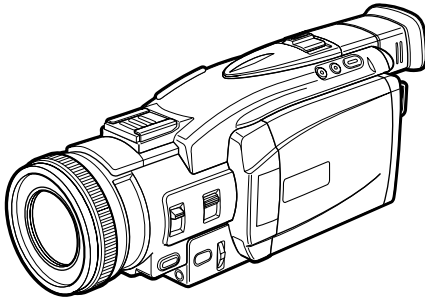


# SHARP SERVICE MANUAL

S52J6VL-AX1U/

LIQUID CRYSTAL DIGITAL CAMCORDER NTSC



## MODEL VL-AX1U

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

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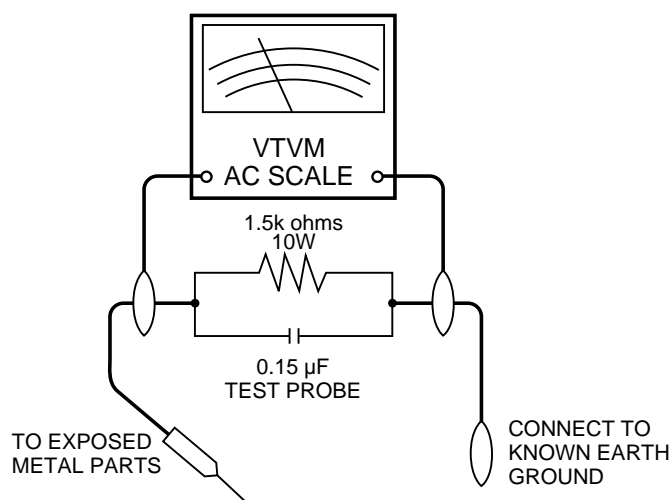
## 1. IMPORTANT SERVICE NOTES

### BEFORE RETURNING THE VIDEO CAMERA RECORDER

Before returning the video camera recorder to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the video camera recorder.
2. Inspect all protective devices such as non-metallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor/capacitor networks, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
  - Plug the AC line cord directly into a 120 volt AC outlet (Do not use an isolation transformer for this test).
  - Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 $\mu$ F capacitor in series with all exposed metal cabinet parts and a known ground, such as a water pipe or conduit.
  - Use a VTVM or VOM with 1000 ohm per volt, or higher sensitivity or measure the AC voltage drop across the resistor (See Diagram).
  - Move the resistor connection to all exposed metal parts having a return path to the chassis (antenna

connections, metal cabinet, screw heads, knobs and control shafts, etc.) and measure the AC voltage drop across the resistor. Reverse the AC plug (a non polarized adaptor plug must be used but only for the purpose of completing these checks) on the set and repeat the AC voltage measurements for each exposed metallic part. Any reading of 0.45V rms (this corresponds to 0.3mA rms AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the video camera recorder to the user.



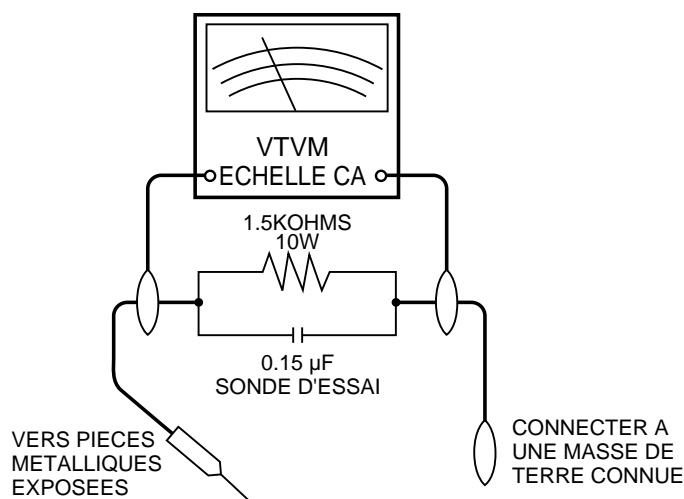
## 1. NOTES DE SERVICE IMPORTANTES

### AVANT DE RENDRE LE MAGNETOSCOPE

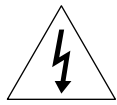
Avant de rendre le magnétoscope à l'utilisateur, effectuer les vérifications de sécurité suivantes.

1. Vérifier toutes les gaines de fil pour être sûr que les fils ne sont pas pincés ou que le matériel n'est pas coincé entre le châssis et les autres pièces métalliques dans le magnétoscope.
2. Vérifier tous les dispositifs de protection tels que les boutons de commande non métalliques, les matériaux d'isolement, le dos du coffret, les couvercles de compartiment et ajustement ou les boucliers, les réseaux de résistance / condensateur d'isolement, les isolateurs mécaniques, etc.
3. Pour être sûr qu'il n'y a aucun risque de choc électrique, vérifier le courant de fuite de la manière suivante.
  - Brancher le cordon d'alimentation secteur directement dans une prise de courant de 120 volts. (Ne pas utiliser de transformateur d'isolement pour cet essai).
  - Utiliser deux fils à pinces et connecter une résistance de 10 watts 1,5 kohm en parallèle avec un condensateur de 0,15  $\mu$ F en série avec des pièces du coffret métallique exposées et une masse de terre connue telle qu'un tuyau ou un conduit d'eau.
  - Utiliser un VTVM ou VOM avec une sensibilité de 1000 ohms par volt ou plus ou mesurer la chute de tension CA entre la résistance (voir diagramme).
  - Déposer la connexion de la résistance à toutes les pièces métalliques exposées ayant un parcours de

retour au châssis (connexions d'antenne, coffret métallique, têtes de vis, boutons et arbres de commande, etc.) et mesurer la chute de tension CA entre la résistance. Inverser la fiche CA (une fiche intermédiaire non polarisée doit être utilisée à seule fin de faire ces vérifications.) sur l'appareil et répéter les mesures de tension CA pour chaque pièce métallique exposée. Toute lecture de 0,45 V rms (ceci correspond à 0,3 mA rms CA) ou plus est excessive et signale un danger de choc qui doit être corrigé avant de rendre le magnétoscope à son utilisateur.



**WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO WET LOCATIONS.**

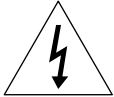


### CAUTION

**RISK OF ELECTRIC SHOCK  
DO NOT OPEN**



**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol warns the user of uninsulated voltage within the unit that can cause dangerous electric shocks.

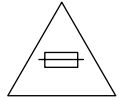


This symbol alerts the user that there are important operating and maintenance instructions in the literature accompanying this unit.

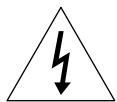
### CAUTION

This symbol mark means following.  
For continued protection against fire hazard, replace only with same type fuse.  
(CP1; 1.25A 24V, CP2; 1.25A 24V, CP3; 1.25A 24V, CP4; 1.25A 24V)

Camcorder  
only



**ATTENTION: POUR REDUIRE LES RISQUES D'INCENDIE OU DE CHOC ELECTRIQUE, NE PAS EXPOSER CET APPAREIL A LA PLUIE OU A L'HUMIDITE.**



### ATTENTION

**RISQUE DE CHOC ELECTRIQUE  
NE PAS OUVRIR**



**ATTENTION:** AFIN DE REDUIRE LES RISQUES DE CHOC ELECTRIQUE, NE PAS RETIRER LE COUVERCLE, AUCUN ORGANE INTERNE NE PEUT ETRE REPARÉ PAR L'UTILISATEUR, CONFIER L'APPAREIL A UN DEPANNEUR QUALIFIE.



Ce symbole signale à l'utilisateur la présence d'une tension non isolée à l'intérieur de l'appareil qui peut être la cause de secousses électriques dangereuses.

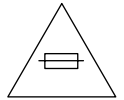


Ce symbole avertit l'utilisateur que des instructions importantes relatives à l'utilisation et à l'entretien se trouvent dans le manuel accompagnant l'appareil.

### ATTENTION

Ce symbole signifie que l'on devra utiliser un fusible de même type (CP1; 1,25A 24V, CP2; 1,25A 24V, CP3; 1,25A 24V, CP4; 1,25A 24V) pour assurer la sécurité.

Camcorder  
seulement




**CAUTION**  
**BEFORE BATTERY DESTROY**

## ■ NICKEL-CADMIUM BATTERY

The following program is available in the United States. Please consult local environmental authorities concerning the availability of this or other programs in your area.

### The RBRC™ Seal

SHARP participates in the RBRC™\* Nickel-Cadmium Battery Recycling Program in the United States. The RBRC™ Seal on our battery pack contained in our product indicates that SHARP is voluntarily participating in an industry program to collect and recycle these batteries. The RBRC™ program provides you with a convenient alternative to placing spent Nickel-Cadmium battery packs into the trash or municipal waste stream, which is illegal in some areas. At the end of their useful life, the Nickel-Cadmium battery can be dropped off at the nearest collection center for recycling. For information on the nearest collection center, call 1-800-8-BATTERY or your local recycling center. If you are located outside the United States, contact your local authorities for information concerning proper disposal and/or recycling of this battery. SHARP's involvement in this program is part of our commitment to protecting our environment and conserving natural resources.

[Footnote] \*RBRC™ is trademark of the Rechargeable Battery Recycling Corporation.

## ■ NICKEL-METAL HYDRIDE BATTERY

## ■ LITHIUM or LITHIUM-ION BATTERY

## ■ SEALED LEAD BATTERY

### Battery disposal

Contains the above (Rechargeable) Battery. must be recycled or disposed of properly.

Remove the Battery from the products and contact Federal or State Environmental Agencies for information on recycling and disposal options.



## 2. SPECIFICATIONS

Signal System:	NTSC standard
Recording System:	2 rotary heads, helical scanning system
Cassette:	Digital VCR Mini DV video cassette
Recording/Playback Time:	90 minutes (DVM60, LP mode)
Tape Speed:	SP mode: 18.812 mm/second LP mode: 12.555 mm/second
Pickup Device:	1/3.6" (effective size: 5.0 mm) CCD image sensor (with approx. 1,330,000 pixels including optical black)
Lens:	23x optical/500x digital power zoom lens (F1.8-3.5, f = 3.8 – 87.4 mm in TAPE-CAMERA mode, f = 4.0 – 87.4 mm in CARD-CAMERA mode), full-range auto focus
Lens Filter Diameter:	46 mm
Monitor:	3.0" (7.5 cm) full-colour LCD screen (TFT active matrix)
Microphone:	Electret stereo microphone
Colour Temperature Compensation:	Auto white balance with white balance lock and indoor, outdoor, manual adjustment feature
Minimum Illumination:	3 lux(with gain-up, F1.8)
Video Output Level:	1.0 Vp-p 75-ohm unbalanced
Audio Output Level:	–8 dBs, impedance less than 2.2 kohms
Speaker Output:	300 mW
Still Image Compression System/	
Recording Format:	JPEG base line conformance/JPEG (Exif2.1)
Still Image Recording Medium:	MultiMediaCard, SD Memory Card
Power Requirement:	DC 7.4 V
Power Consumption:	4.3 W (during camera recording in TAPE-CAMERA mode using the viewfinder in Full Auto mode with the DIS function on) 5.1 W (during camera recording in TAPE-CAMERA mode using the LCD monitor in Full Auto mode with the DIS function on and backlight in normal mode)
Operating Temperature:	32°F to 104°F (0°C to +40°C)
Operating Humidity:	30% to 80%
Storage Temperature:	–4°F to 140°F (–20°C to +60°C)
Dimensions (approx.):	3 1/32" (W) × 3 3/8" (H) × 8 11/32" (D) [77 mm (W) × 86 mm (H) × 212 mm (D)]
Weight (approx.):	1.45 lbs(655 g) (without battery pack, lithium battery, video cassette, lens hood, hand strap and SD card)

### AC Adapter/Battery Charger UADP-0333TAZZ

Power Requirement:	AC 110-220 V, 60 Hz
DC Output:	7.3 V, 1.4A
Power Consumption:	23 W
Dimensions (approx.):	3 5/32" (W) × 1 25/32" (H) × 3 7/8" (D) [80 mm (W) × 45 mm (H) × 98 mm (D)]
Weight (approx.):	0.43 lbs (196 g)

### MultiMediaCard (Supplied Accessory)

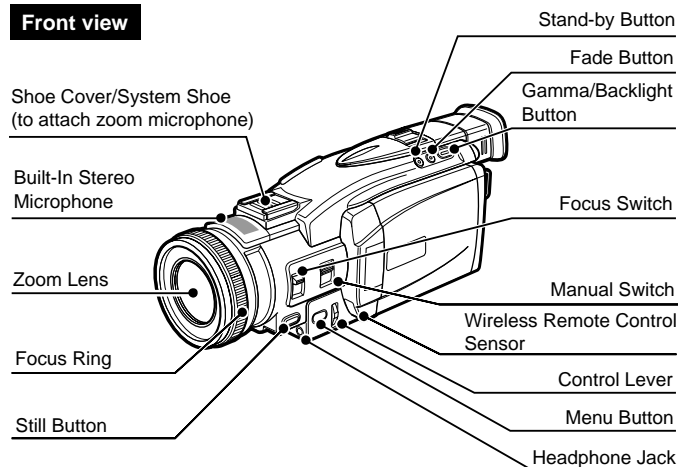
Memory Capacity:	8 MB
Power Requirement:	3 V
Operating Temperature:	32°F to 104°F (0°C to +40°C)
Storage Temperature:	–4°F to 149°F (–20°C to +65°C)

Specifications are subject to change without notice.

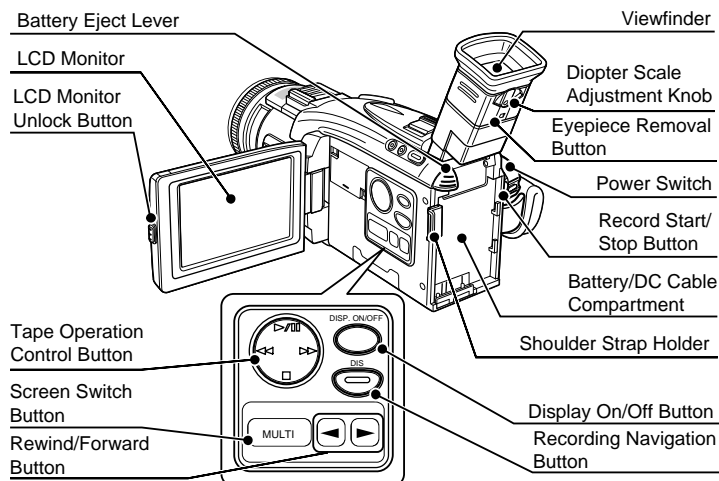
### 3. PART NAMES

For details on the use of each control.

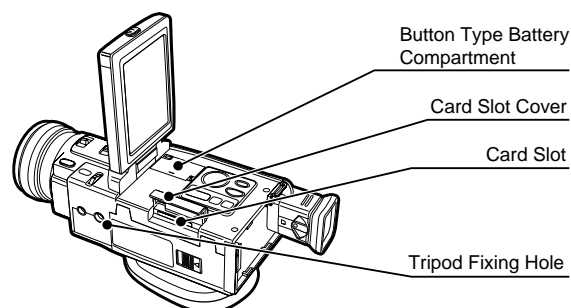
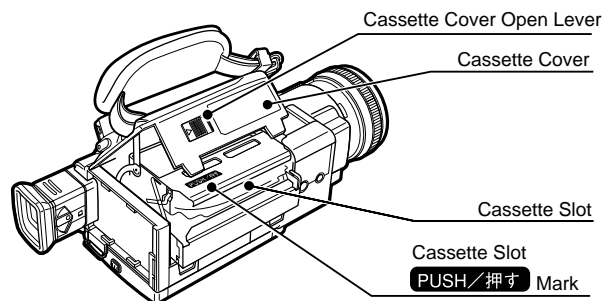
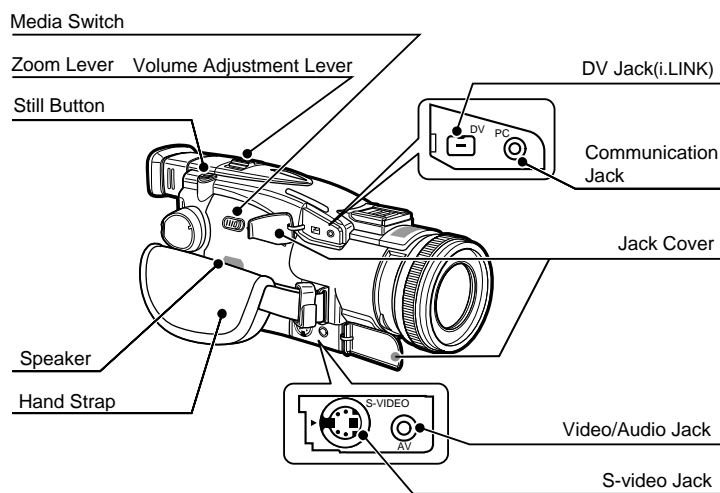
#### Front view



#### Left view



#### Right view



#### Zoom Microphone

#### Wind Screen

Microphone

Shoe

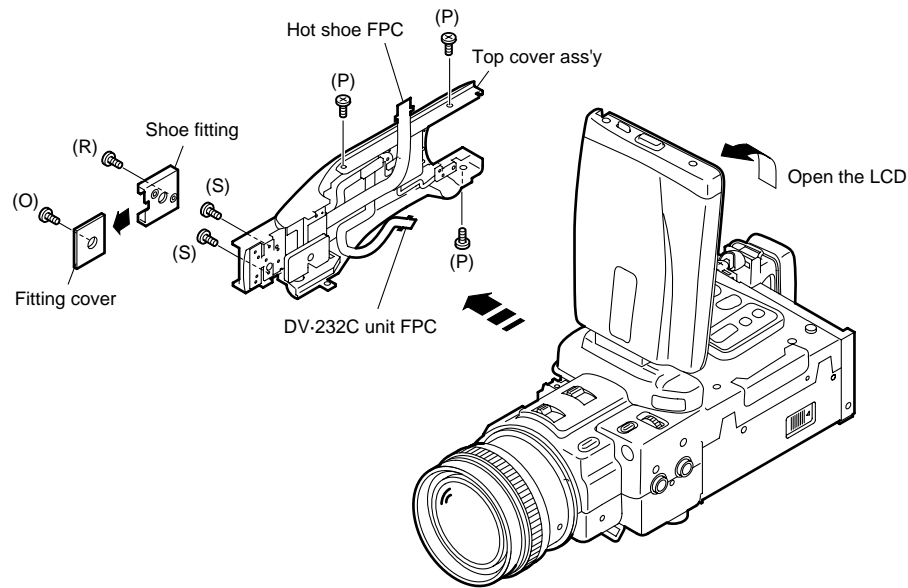
Shoe Fixer

## 4. DISASSEMBLY OF THE SET

### Note:

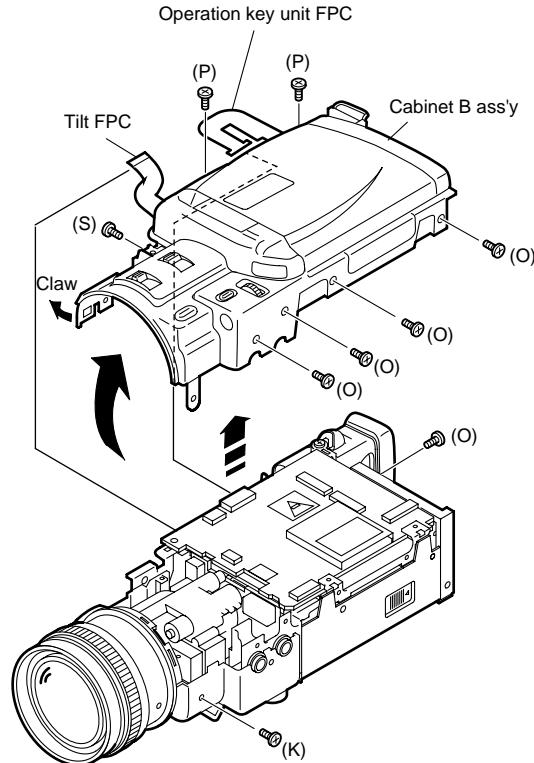
Before removing the cabinet, turn off the power supply, and ascertain that the battery have been removed.

1.



- Remove the 1 screw ((O)XiPSF17P03000). Lifting the fitting cover a little, pull it out in the direction of the arrow.
- Remove the 1 screw ((R)XiPSN17P03000), and pull out the shoe fitting in the direction of the arrow.
- Open the LCD, and remove the 3 screws ((P)XiPSF17P04000) and 2 screws ((S)XiPSN17P04000). Pull out the top cover ass'y in the direction of the arrow to detach the DV•232C unit FPC and hot shoe FPC. (If the top cover ass'y is pulled out by force, the FPC may be cut off. Therefore, pull it out gently.)

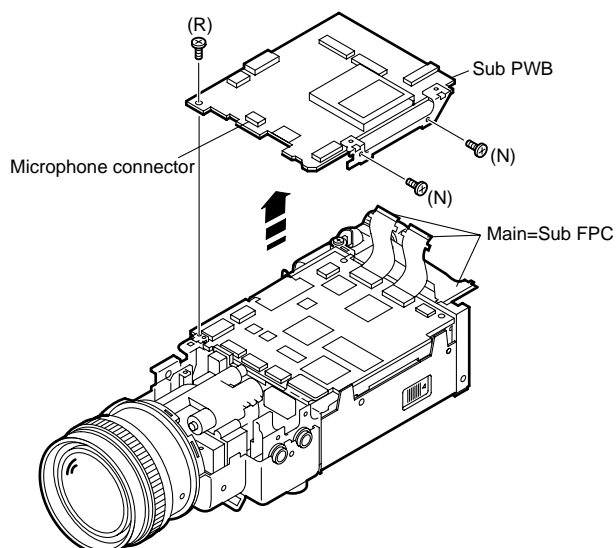
2.



- Detach the operation key unit FPC and Tilt FPC.
- Remove the 1 screw ((S)XiPSN17P04000), 5 screws ((O)XiPSF17P03000), 1 screw ((K)LX-HZ0063TAFN), and 2 screws ((P)XiPSF17P04000).
- Raise the claw in the direction of the arrow, and pull out the cabinet B ass'y to detach the BtoB of the camera operation unit. (If the cabinet B ass'y is pulled out by force, the FPC may be cut off. Therefore, pull it out gently.)

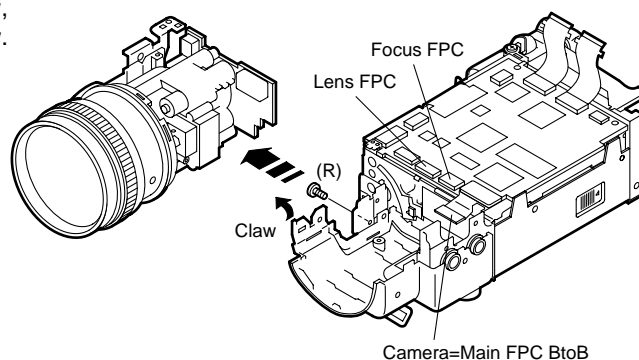
3.

- Detach the 3 main=sub FPCs (1, 2 and 3) and 1 microphone connector.
- Remove the 1 screw ((R)XiPSN17P03000) and 2 screws ((N)XiPSF17P02000), and pull out the sub PWB in the direction of the arrow.



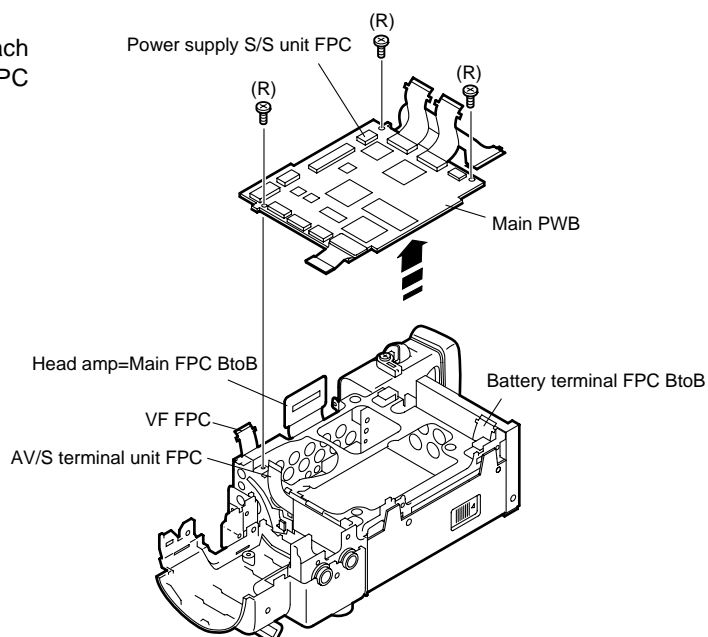
4.

- Detach the lens FPC, focus FPC, and camera=main FPC BtoB.
- Remove the 1 screw ((R)XiPSN17P03000), raise the claw, and then pull out the lens section in the direction of the arrow.



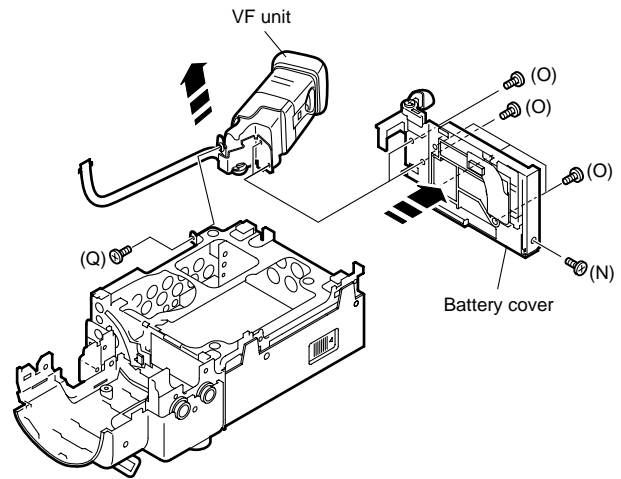
5.

- Detach the head amp=main FPC BtoB, battery terminal FPC BtoB, AV/S terminal unit FPC, and power supply S/S unit FPC.
- Remove the 3 screws ((R)XiPSN17P03000).
- Pull out the main PWB in the direction of the arrow to detach the VF FPC. (If the main PWB is pulled out by force, the FPC may be cut off. Therefore, pull it out gently.)

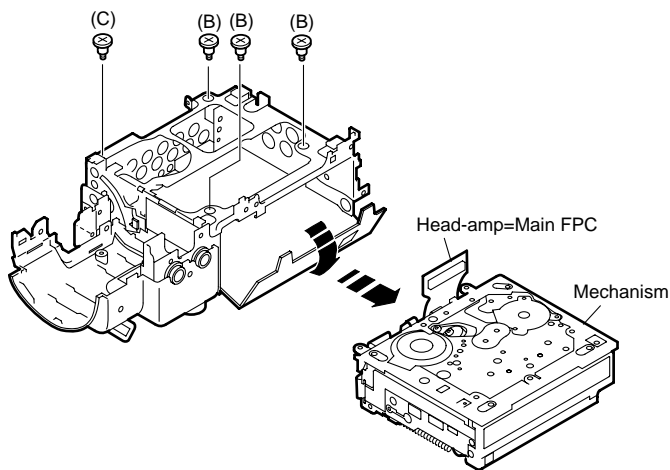


6.

- Remove the 1 screw ((Q)XiPSN17P02000) and 5 screws ((O)XiPSF17P03000), and pull out the VF unit in the direction of the arrow.
- Remove the 1 screw ((N)XiPSF17P02000) to detach the battery cover.

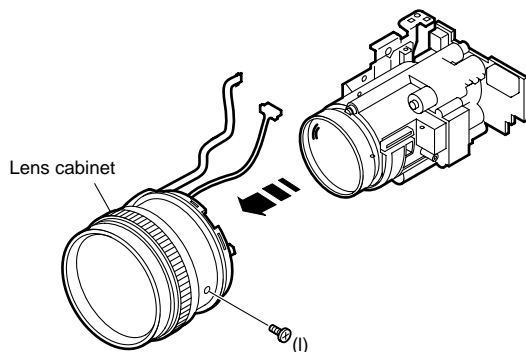


7.



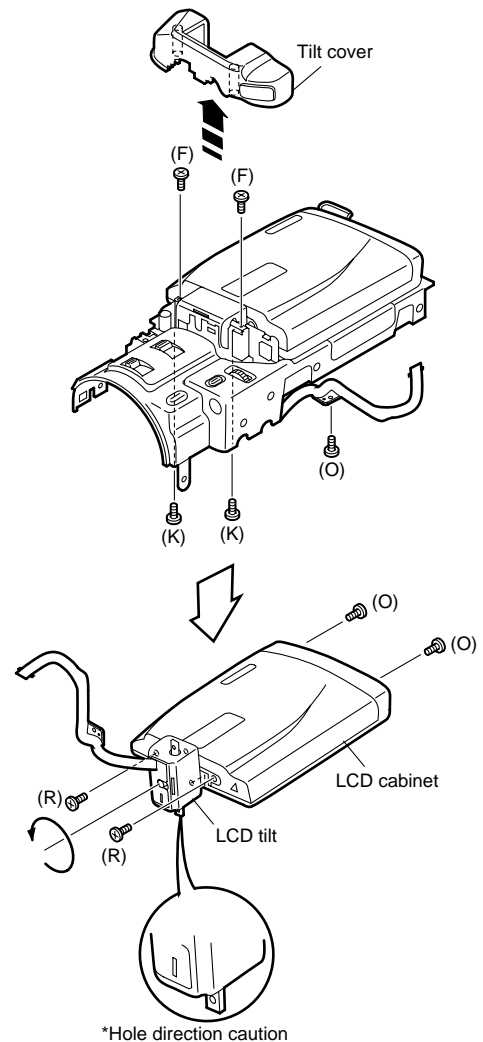
- Remove the 3 screws ((B)LX-BZ0232TAFD) and 1 screw ((C)LX-BZ0245TAFD).
- Open the cassette lid, and pull out the mechanism through the opening in the direction of the arrow.

8.



- Remove the 1 screw ((I)LX-HZ0050TAFN), and pull out the lens cabinet in the direction of the arrow.

9.



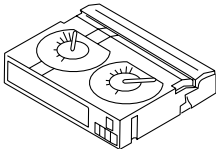

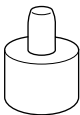
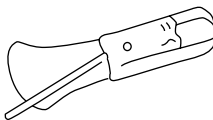
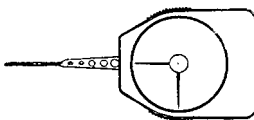
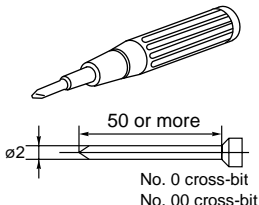
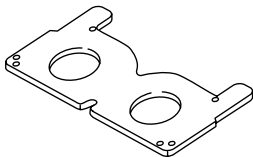
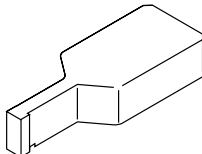
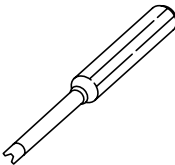
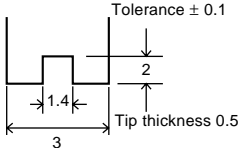
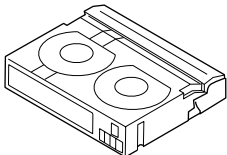
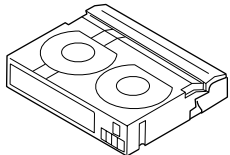
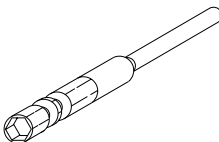
- Remove the 2 screws ((K)LX-HZ0063TAFN) and 1 screw ((O)XiPSF17P03000) to detach the tilt cover.
- Remove the 2 screws ((F)LX-HZ0017TAFD) to detach the LCD cabinet.
- Turn the LCD tilt to verticalize it to the LCD cabinet.
- Remove the 2 screws ((O)XiPSF17P03000) and 2 screws ((R)XiPSN17P03000).

## 5. MECHANISM ADJUSTMENT JIGS AND PARTS

### 5-1. Mechanism check adjustment jigs

<Note: The entries of list>

Configuration  
1. Name  
2. Part No.  
3. Code  
\* Model, Uses Remarks

 <p>1. PB-use cassette Torque meter 2. 9DASD-1015 3. DB * 1mN·m/1.5mN·m</p>	 <p>1. Torque gauge 2. JiGTG0045 3. CN * For use in VS-REW winding torque measurement.</p>	 <p>1. Torque gauge head 2. 9EQTGH-DH5000 3. BW * For use with the torque gauge listed left.</p>	 <p>1. Tension gauge 4N 2. JiGSG0400 3. BK * For measurement of pinch roller pressure.</p>	 <p>1. Dial tension gauge 2. 9DAPTG-10-10W 3. CA * PTG-10</p>
 <p>1. Torque screwdriver 150mN·m 2. JiGTD1500RTDH 3. CB</p>	 <p>1. Master plane 2. 9EQMP-VLPD1 3. CL * For checking reel base height.</p>	 <p>1. Height adjustment jig 2. 9DAHG-PD1 3. BZ * For height adjusting.</p>	 <p>1. Height adjustment screwdriver 2. 9EQDRIVER-DH5 3. BC * For guide roller adjustment.</p>	<p>* For Tu guide adjustment. * For T roller adjustment. * Bit shape (see figure below).</p> 
 <p>1. Alignment tape – ( I ) 2. VR3-GAZXS 3. CF * For tape running adjustment.</p>	 <p>1. Alignment tape – ( II ) 2. VR3-GTZQS 3. CG * For SW point adjustment. * 90ADVC-TAPE can use, too.</p>	 <p>1. For hexagon nut opposite side 3mm bit. 2. 95CM22001 3. BL * For S guide hexagon nut installation.</p>	<p>&lt;Miscellaneous&gt;</p> <p>(1) Slide caliper (2) Precision screwdrivers (Phillips head and slotted) (3) Radio needle-nose pliers (4) Tweezers</p>	<p>Configuration 1. Name 2. Part No. 3. Code * Model, Uses Remarks</p>

### 5-2. Parts for regular periodic inspection and maintenance

<Note:

The entries of list>

Configuration  
1. Name  
2. Part No.  
3. Code  
\* Model, Uses Remarks

<p>1. Oil Cosmo Hydro HV22 2. 9EQ-Oil-HV22 3. AE * Cosmo Petroleum K.K.</p>	<p>1. Cleaning paper 2. JiGDUSPER 3. AP * DUSPER Σ (SIGMA) (ozu Co., LTD.)</p>	<p>1. Grease: Moly Coat YM-103 2. 99FGREASE-YM103 * Dow corning 1. Screw lock (1401B) * Three Bond</p>	<p>1. Cleaning liquid: industrial-use ethyl alcohol * Commercially available item 1. Extremely thin cotton swab * Commercially available item</p>
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#### <How to make jigs for mechanism checking and adjustment>

##### (1) Reel hub for back tension measurement (Fig. 1)

1) Obtain a commercially available cassette tape reel hub.  
(Disassemble the cassette tape and remove the tape from the reel hub.)

2) Paste one end of a string (about 20cm long) to the reel hub with (for example) cellophane tape.

3) Paste the weight of about 0.21N on the upper side reel hub.

##### (2) String for use in pinch roller snap-fit force measurement (Fig. 2)

1) Obtain an approximately 20cm length of commercially available string.

2) Tie the 2 ends together to form a loop.

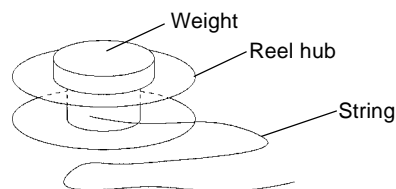


Fig. 1



Fig. 2

## 6. INSPECTION AND MAINTENANCE ITEMS AND INTERVALS

In order to keep the mechanical section always in good condition, perform the following inspection and maintenance at regular intervals. In addition, after repair, perform the following maintenance items regardless of how long the user has been using the unit.

### 6-1. List of inspection and maintenance items

○... Replace. □... Clean. △... Lubricate. ★... Check.

	Inspection and maintenance location	Time of use (h)					Symptoms that indicate need for maintenance	Remarks
		500	1,000	1,500	2,000	3,000		
Tape running system	Tape running section (see section 8-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"><li>• Block-type noise</li><li>• Head hole clogging</li><li>• Tape damage</li></ul>	<b>Note:</b> Replace the drum ass'y if the video head is cleaned but the envelope still does not appear. (When the envelope is normal, refer to "11. USEFUL TIPS".)
	Drum section, Video head (see section 8-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<Rollers> <ul style="list-style-type: none"><li>• Replace if there is anything abnormal in the rotation, or if there is run-out (that becomes large).</li></ul> <Other than the above> <ul style="list-style-type: none"><li>• Clean the section that contacts the tape (especially the lower drum helical section). Use the specified cleaning liquid.</li></ul>							
Drive system	Timing belt	—	★○	—	★○	★○	<ul style="list-style-type: none"><li>• The tape fails to run.</li><li>• The tape becomes slack.</li><li>• Block-type noise</li><li>• Abnormal noise</li></ul>	• Replace if there is anything abnormal.
	Pinch roller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Capstan motor	—	○	—	○	○		
	Swing arm S reel base, Tu reel base	—	★○	—	★○	★○	• Abnormal noise	• Lubricate with oil. [Oil] Cosmo Hydro HV22 <b>Note:</b> Apply oil to the shaft, then wipe lightly with a cloth.
	Center pulley shaft Intermediate pulley shaft Swing arm boss Intermediate gear A shaft, Intermediate gear B shaft	—	△	—	△	△		
	Loading motor Mode switch	—	★○	—	★○	★○		
Performance checks	Abnormal noise	★	★	★	★	★	<ul style="list-style-type: none"><li>• The tape fails to run.</li><li>• The tape becomes slack.</li><li>• Tape damage</li><li>• The play-back image is abnormal.</li></ul>	• Replace any part that fails to perform within the standard.
	PB · VS/R winding torque	—	★	—	★	★		
	PB · VS/R · loading back tension Tu reel base ratchet torque	—	★	—	★	★		
	S reel base no-load torque	—	★	—	★	★		

[Oil] Cosmo Hydro HV22

[Grease] Moly Coat YM-103

[Screw lock] Three Bond 1401B

[Cleaning liquid] Industrial-use ethyl alcohol

### 6-2. Precautions

- When replacing any part, always replace the cut washer that was removed with a new one.
- This mechanism does not have control adjustment. If the control cannot be set as required, clean and or replace parts.
- On the oil
  - Always use the specified oil. (Using another kind of oil can cause various kinds of trouble.)
  - Always use clean oil, without any mixed-in dirt, to lubricate bearings. (Using oil with dirt mixed in can cause the bearings to wear or to stick.)
  - One drop of oil is the amount shown in the Fig. 1, on the point of a pin.
- Perform circuit repair, tape running adjustment, etc. with the cassette controller assembly attached to the mechanism.
- When operating the mechanism separately, apply voltage to the loading motor. However, the terminal voltage must be DC3V~4V. (When the mechanism is connected to the main PWB, do not apply external voltage to the loading motor. It may cause a trouble.) (Forcing the gears to turn by hand entails danger of breakage.) If the mechanism is separated from the unit, the capstan motor may rub and be damaged if spacing under the mechanism is inadequate.
- To install the cassette controller, push section A in the Fig. 2. Do not push anything else.
- Do not deform any of the mechanical parts.

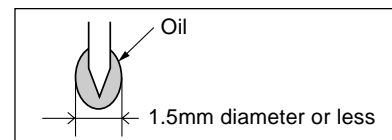


Fig. 1

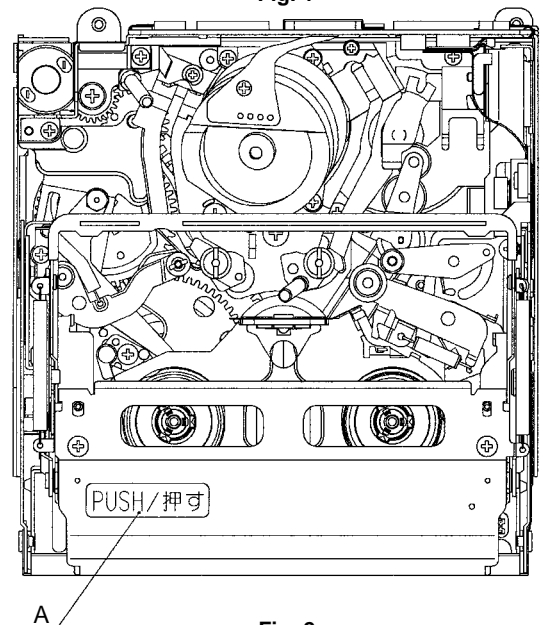


Fig. 2

## 7. MECHANICAL ADJUSTMENTS AND CHECKS

The items discussed here relate to general on-site servicing (field servicing). Adjustments and replacements that require sophisticated facilities, jigs and technology are omitted.

In addition, in order to maintain the characteristics that the unit has when it is new, not only are inspection and maintenance necessary, but it is absolutely necessary that, for example, the tape not be damaged, and always use jigs for adjustments that require them.

### <Precautions>

(1) Always set the power supply and state of the unit as follows Notes for mechanism adjustments and checks.

AC adapter used, with cassette controller assembly

AC adapter used, without cassette controller assembly (Independent Mechanism)

DC3V, without cassette controller assembly (Independent Mechanism)

(2) When the mechanism is connected to the main PWB, do not apply external voltage to the loading motor. It may cause a trouble.

(3) Always run the tape with the cassette controller assembly attached.

### 7-1. Checking the playback (recording) winding torque AC adapter used, with cassette controller assembly

(1) Set the torque cassette with the cassette controller assembly attached, then, in SP recording mode (playback mode if a signal has already been recorded in SP mode on the tape), confirm that the torque on the winding side is within the standard.

#### <Winding torque standard in record (playback) mode>

(If there is torque ripple, read the center value.)

$0.70 \pm 0.4 / -0.3 \text{ mN}\cdot\text{m}$ , ripple  $0.4 \text{ mN}\cdot\text{m}$  or less

### 7-2. Checking the rewinding playback (VS-REW) winding torque

AC adapter used, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, press the DOWN switch, using the adhesive tape and referring to 9-3, operate in the TEST mode (T01) to rewind, and set the rewinding playback (VS-REW) mode.

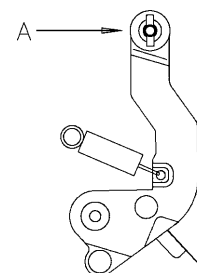
(2) Set the torque gauge on the S reel base, press the front end of tension post with your finger in the arrow A direction so as to ascertain that the winding torque is as specified. (Check without rotating the torque gauge.)

#### <Rewinding playback (VS-REW) winding torque standard>

(If torque ripple exists, read its center value.)

$1.6 \pm 0.6 \text{ mN}\cdot\text{m}$ , ripple  $0.5 \text{ mN}\cdot\text{m}$  or less

(3) After checking the winding torque remove the torque gauge, and remove the adhesive tape used in item (1) above (refer to 9-3). The STANDBY mode is set automatically.



**Fig. 1. Removal of tension band when measuring the rewinding playback (VS-REW) winding torque**

### 7-3. Checking of reel base height DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly (refer to 9-2).

(2) Referring to 9-1, apply DC3V to the loading motor and put the system into playback mode.

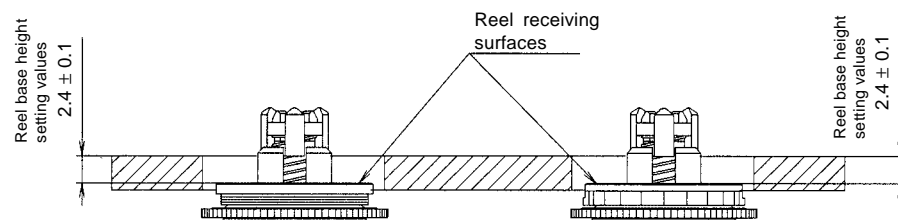
(3) Taking adequate care so that the master plane does not contact drum, running parts (guide roller, etc.), or the MIC contacts. Fit the master plane holes to the 2 guides (A and B) in Fig. 2.

(4) Confirm that the heights of the S reel base reel receiving surface and the Tu reel base reel receiving surface below the master plane top surface are within the set values, using, for example, a slide calliper (Fig. 3).

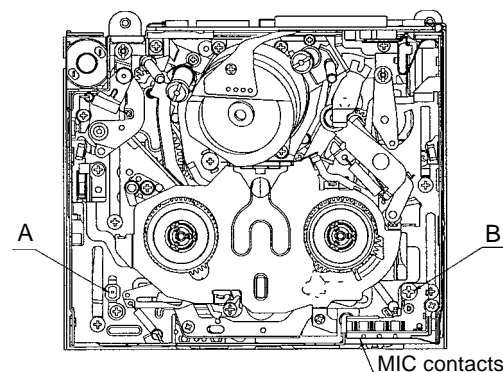
When checking the S reel base height, press the front end of tension post in the arrow A direction with your finger to release the tension band, and then check the height in this state (Fig. 1).

(5) If the height is not within set values, replace the washer under the reel base, and adjust as specified.

**Note:** After the adjustment, make sure that the reel bases rotate smoothly.



**Fig. 3**



**Fig. 2**



## 7-4. Back tension torque check and adjustment in record (playback) mode

AC adapter used, with cassette controller assembly

### (1) Checking

Set the torque cassette (SD-1015), and make sure in the SP record mode that the supply side torque is within the standard shown below (or in the playback mode for the tape on which the signal has been SP-recorded).

### <Standard>

(If torque ripple exists, read its center value.)

$0.7 \pm 0.1 \text{ mN}\cdot\text{m}$

### (2) Adjustment (Fig. 4)

If the value is out of standard range, adjust, using the screw 1 shown in Fig. 4.

1. Loosen the screw 2 slightly.

2. Adjust to turning the screw 1. When back tension is too high, turn the screw 1 counterclockwise (CCW).

When back tension is too low, turn the screw 1 clockwise (CW).

3. After adjustment fix the angle with the screw 2. (At this time take care so as to prevent excessive tightening.) Apply Screw Lock to the screw 1.

### <Caution>

Screw tightening torque:  $0.04 \text{ N}\cdot\text{m}$

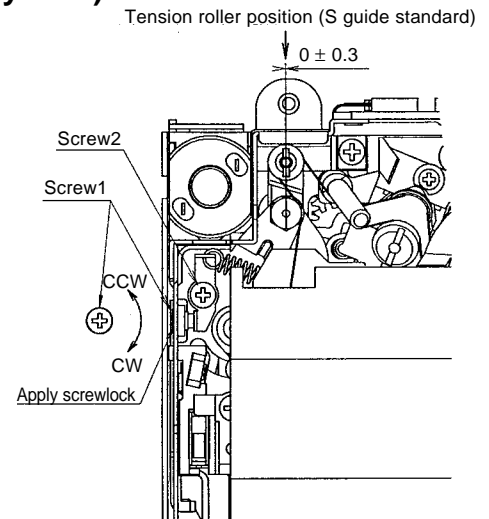


Fig. 4. Check (tape exists)

## 7-5. Checking and adjustment of tension roller position in record (playback) mode

DC3V, without cassette controller assembly (Independent Mechanism)

### (1) Checking

Before winding the 60-min tape make sure that the tension roller is in the same position as S guide as shown in Fig. 4.

If not, take out the tape and adjust in the following procedure.

### (2) Adjustment (Fig. 5)

1. Set the playback mode without loading the tape.

2. Loosen the screw 3 slightly (to such an extent that the tension band holder 4 can be moved).

3. If the tension roller is inside from the specified position, shift the tension band holder 4 in the arrow (A) direction. If the tension roller is outside, shift the tension band holder in the arrow (B) direction, and fix with the screw 3. (Proper shift must be 0.2 to 0.6mm outside from the specified position.)

4. Check the position by the procedure described in item (1) Checking above.

5. If the position is not specified position, adjust again.

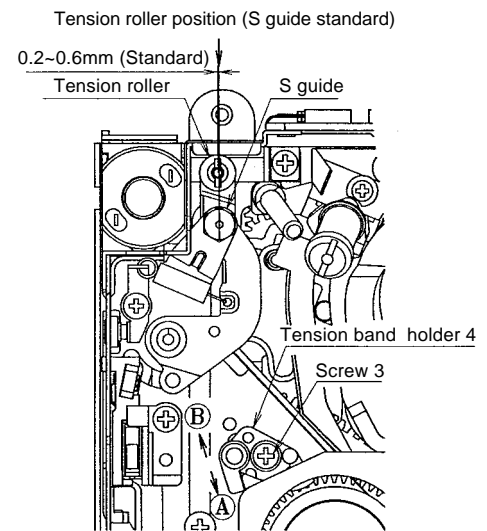


Fig. 5. Position adjustment (tape does not exist)

## 7-6. Checking of supply S reel base no-load torque

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into L. start mode (refer to 9-1).

(2) Move the swing arm toward the Tu reel base side.

Be careful not to cause damage to the gears and other parts in the process. (Fig. 6)

(3) Set a back tension measurement reel hub on the S reel base.

(4) Using a dial tension gauge, pull the string in the A direction, then confirm that the tension is within the standard.

### <FF back tension standard>

(If the tension fluctuates, read its center value.)

30mN or less

## 7-7. Checking of loading back tension

DC3V, without cassette controller assembly (Independent Mechanism)

(1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into L. start mode. (refer to 9-1)

(2) Move the swing arm toward the S reel base side. Be careful not to cause damage to the gears and other parts in the process. (Fig. 7)

(3) Set a back tension measurement reel hub on the Tu reel base.

(4) Using a dial tension gauge, pull the string in the A direction, then confirm that the tension is within the standard.

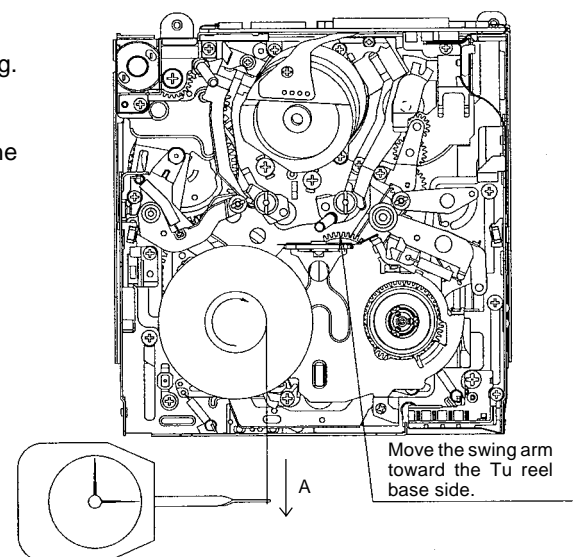


Fig. 6. S reel base no-load torque measurement method

**<REW back tension standard>**

(If the tension fluctuates, read its center value.)

 $15 \pm 12\text{mN}$ **7-8. Checking of winding Tu reel base ratchet torque**

DC3V, without cassette controller assembly (Independent Mechanism)

- (1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into standby mode. (refer to 9-1)
- (2) Move the swing arm toward the S reel base side.  
Be careful not to cause damage to the gears and other parts in the process. (Fig. 8)
- (3) Set a back tension measurement reel hub on the Tu reel base.
- (4) Using a dial tension gauge, pull the string in the A direction, then confirm that the tension is within the standard.

**<Winding Tu reel base ratchet torque standard >**

(If the tension fluctuates, read its center value.)

100mN or less

**7-9. Checking of rewinding playback (VS-REW) back tension**

DC3V, without cassette controller assembly (Independent Mechanism)

- (1) Remove the cassette controller assembly, then apply DC3V to the loading motor and put the system into rewinding playback (VS-REW) mode. (refer to 9-1)
- (2) Move the swing arm toward the S reel base side.  
Be careful not to cause damage to the gears and other parts in the process.
- (3) Set a torque gauge on the Tu reel base.
- (4) Turning the torque gauge to counterclockwise (1 turn for 3 seconds), then confirm that the torque is within the standard.

**<Rewinding playback (VS-REW) back tension standard value>**

(If the tension fluctuates, read its center value.)

 $0.70 +0.6/-0.3\text{mN}\cdot\text{m}$ **7-10. Checking of pinch pressing force**

DC3V, without cassette controller assembly (Independent Mechanism)

- (1) Set the pinch roller pressing force measuring thread on the pinch lever (position A, Fig. 9).
- (2) Set the mechanism to the playback mode, press the pinch roller against the capstan shaft.
- (3) Fit the tension gauge to the pinch roller pressing force measuring thread, pull in the arrow B direction shown in Fig. 11 to separate a little the pinch roller from the capstan shaft.
- (4) Gradually return the pinch roller, and when the pinch roller contacts parallel the capstan shaft, read the value (see Fig. 10) to make sure that the value conforms to the standard shown below.

**<Standard>** $1.8 +0.3/-0.5\text{N}$ **<Caution>**

After making this measurement, quickly release the system from playback mode and remove the pinch roller from the capstan shaft. (If the pinch roller is left fitted onto the capstan shaft for a long time, the pinch roller will be deformed.)

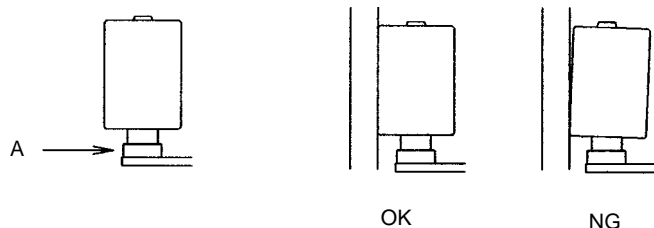


Fig. 9

Fig. 10

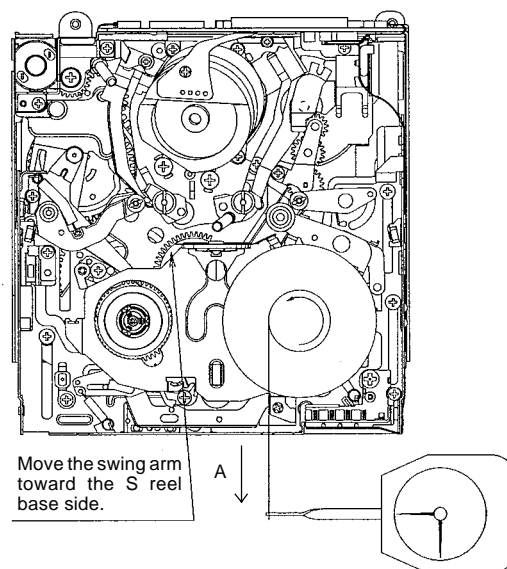


Fig. 7. Loading back tension measurement method

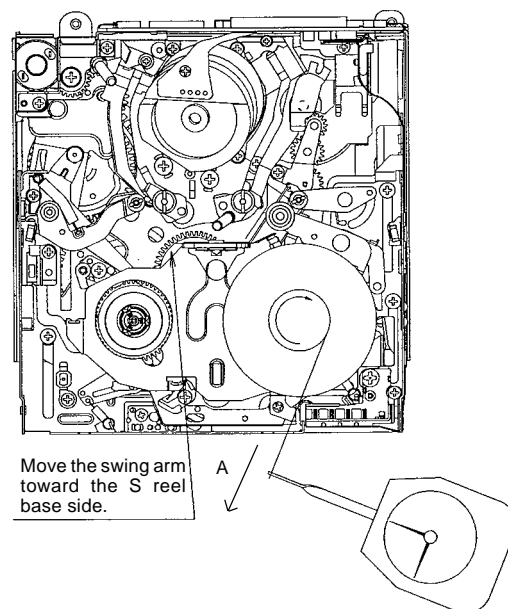


Fig. 8. Winding Tu reel base ratchet torque measurement method

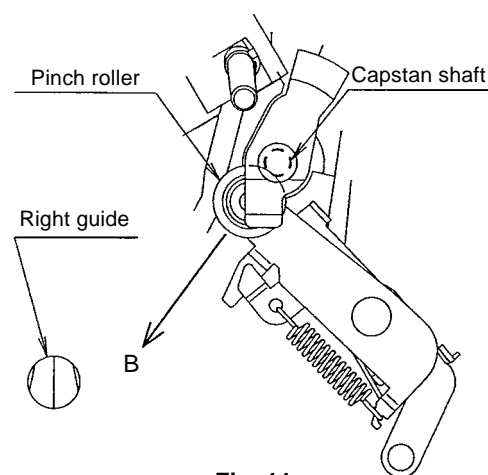
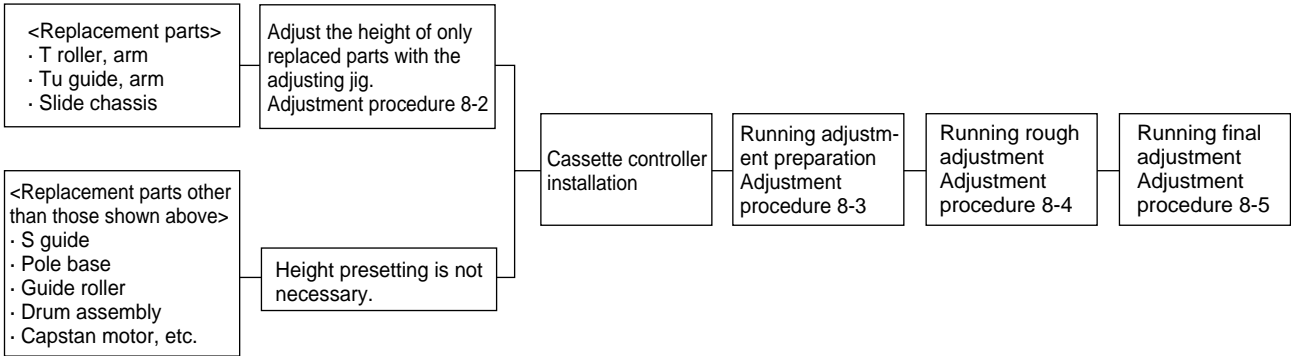


Fig. 11

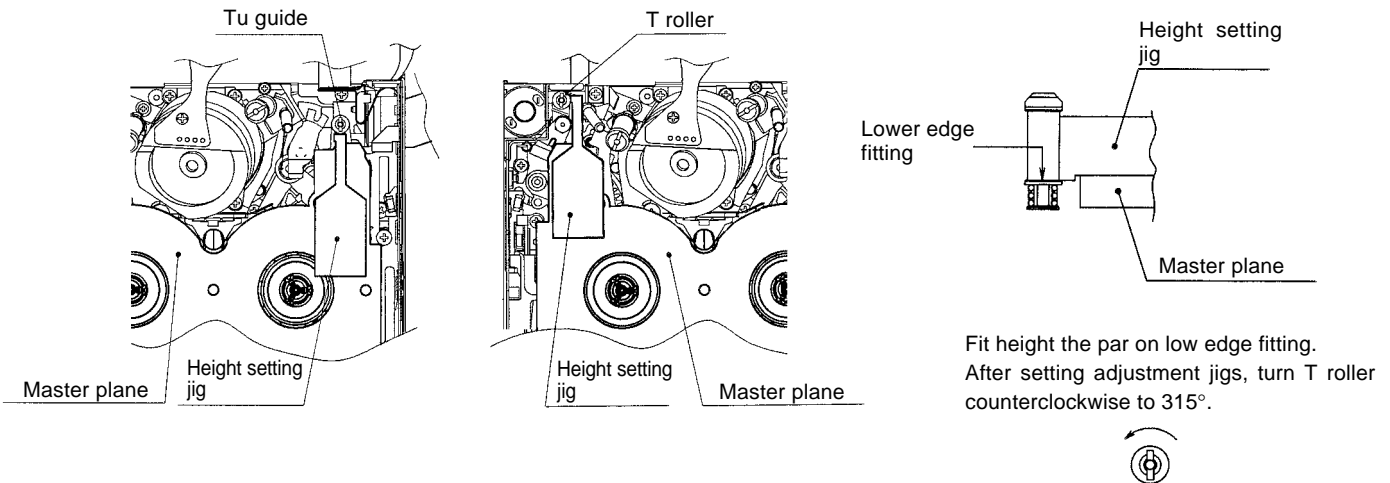
## 8. TAPE RUNNING ADJUSTMENT

### 8-1. Adjustment locations



### 8-2. Running height adjustment

- After replacement of T roller or Tu guide adjust the height. (Adjust only the replaced parts.)
- After height adjustment do not turn the T roller. If crease is found on the tape of Tu guide, remove the crease by rotating. (As for details refer to the "Running rough adjustment".)
- After height adjustment of T roller or Tu guide, apply Screw lock to an end of shaft. (After replacement of S guide apply Screw lock to same point, too.)

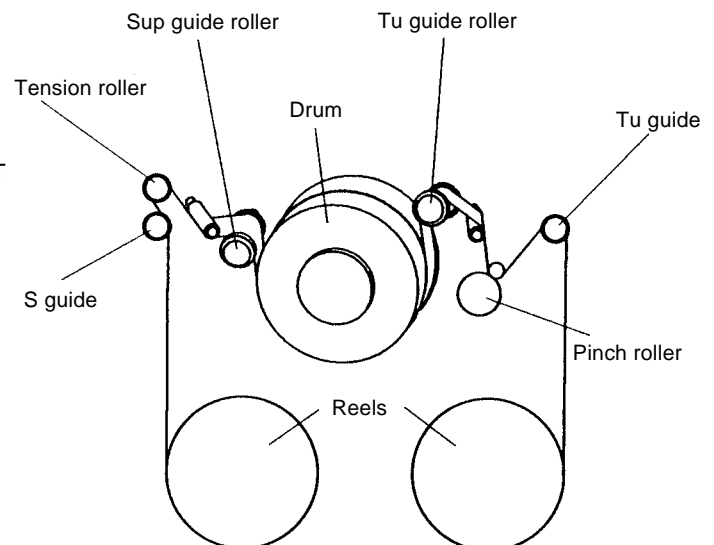


### 8-3. Preparation for tape running adjustment

Meters, jig... Oscilloscope, Adjustment remote control, Height adjustment screw driver, Alignment tape (for tape running adjustment, for switch point adjustment), Master plane, Height adjustment jig.

#### <Method and description>

- (1) Clean the tape running surface (especially, adequately clean the drum surface and the lower drum helicam surface).
- (2) Attach the cassette controller.
- (3) Connect an oscilloscope to each TP on the relay circuit board.
- (4) Turn the AC adapter power ON.
- (5) Using the adjustment remote control unit, put the system TEST mode T-05.
- (6) Replay the alignment tape for running adjustment, and make sure that the tape is running in the SP mode.
- (7) Check the oscilloscope playback envelope, then, at +1/4 shift and -1/4 shift, check whether all of it is flat. If it is not, perform the following adjustment so that it becomes flat.  
(Each time you push the PLAY key, the shift will change; +1/4 shift → Normal → -1/4 shift → Normal, in order.)



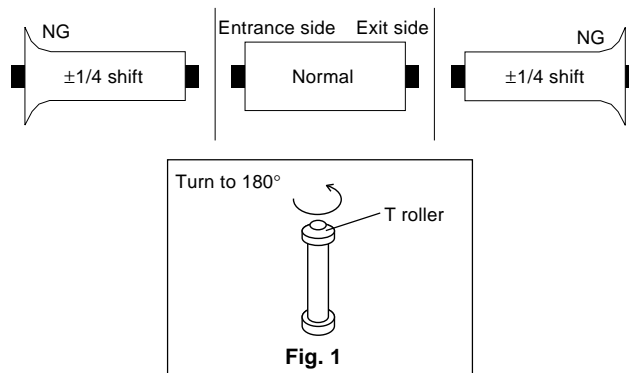
## 8-4. Running rough adjustment

(With cassette controller)

### 1) Su, Tu guide roller height adjustment

#### <Method and description>

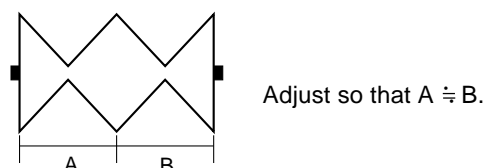
- (1) Loosen the guide roller lock screw, then tighten loosely so that the roller turns easily.
  - (2) Replay an alignment tape, and adjust the Sup, Tu guide roller so that the envelope sides of entrance and exit are flat.
  - (3) Perform  $\pm 1/4$  shift, then, as in the above case, adjust until the envelope becomes flat.
- \* If running is difficult for the entrance changed, turn the T roller to counterclockwise 180°. (refer to Fig. 1)



### 2) Check of V/SR envelope wave form

#### <Method and description>

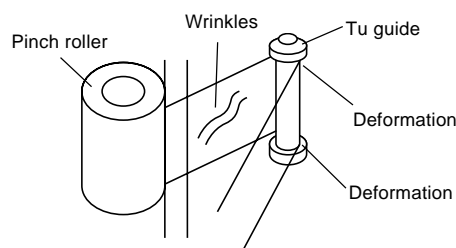
- (1) Confirm that the envelope waveform peaks in V/SR mode are uniform.
- (2) If they are not uniform, fine-adjust the guide roller and the Tu guide.



### 3) Check of tape wrinkles

#### <Method and description>

- (1) Check that the tape is not distorted between the Tu guide and pinch in the PB mode and the V/SR mode.
- ⇒ If crease is found, make an adjustment in the range of  $\pm 180^\circ$ .
- ⇒ After adjustment apply Screw Lock.



### 4) Check the rising time of the envelope wave form

#### <Method and description>

- (1) Check the rising time of the envelope when switching from V/SR mode to PB mode. (Within 5 sec)
- (2) Check the rising time of the envelope when switching from STOP mode to PB mode. (Within 5 sec)

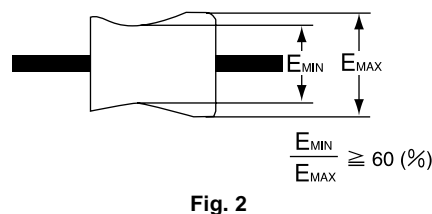
## 8-5. Final running adjustment

(With cassette controller)

### 1) Adjustment of Sup and Tu guide roller height

#### <Method and description>

- (1) Perform  $\pm 1/4$  shift, then if the envelope wave's ratio of MAX. to MIN. are 60% or less, adjust again the height of guide roller. (Refer to Fig. 2)
- (2) Finally adjust the lock screw of Sup and Tu guide roller.
- (3) Once perform unloading and then loading to set the PB mode, and make sure that the envelope waveform does not change.



### 2) Adjustment of playback SWP

#### <Method and description>

- (1) Playback the alignment tape for switch point adjustment.
- (2) Perform SWP automatic adjustment with adjustment remote control.

\* When replacing the mechanism and drum, adjust the phase and equalizer using the adjustment remote control. (Refer to "10. ADJUSTING THE ELECTRICAL CIRCUITS".)

## 9. MECHANICAL SECTION ASSEMBLY AND PARTS REPLACEMENT (DISASSEMBLY AND REASSEMBLY)

Mechanical section disassembly and reassembly are explained in this section.  
For removal of the cabinet, etc., refer to **4. DISASSEMBLY OF THE SET**.

### <Precautions>

1. Always replace cut washers that have been removed, for example in parts replacement, with new ones.
2. When reassembling, be careful not to allow screws, washers or foreign matter to enter. They can cause mechanical misoperation.
3. Use the cleaning liquid, oil, grease and screw lock that are specified below. Use of any other kind can cause mechanical misoperation.

Oil: Cosmo Petroleum : Cosmo Hydro HV22  
Grease: Dow Corning : Moly Coat YM-103

Screw lock: Three Bond :1401B  
Cleaning liquid: Industrial-use ethyl alcohol

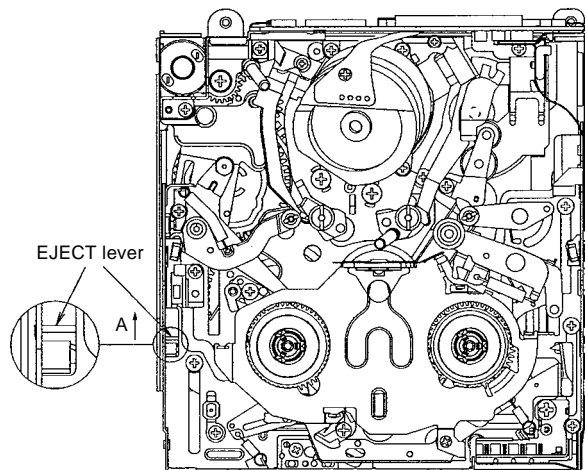
### 9-1. On the mechanical modes

When operating the mechanism separately, apply DC3~4V to the loading motor.

(When the mechanism is connected to the main PWB, do not apply external voltage to the loading motor. It may cause operational problems.)

#### (1) EJECT mode

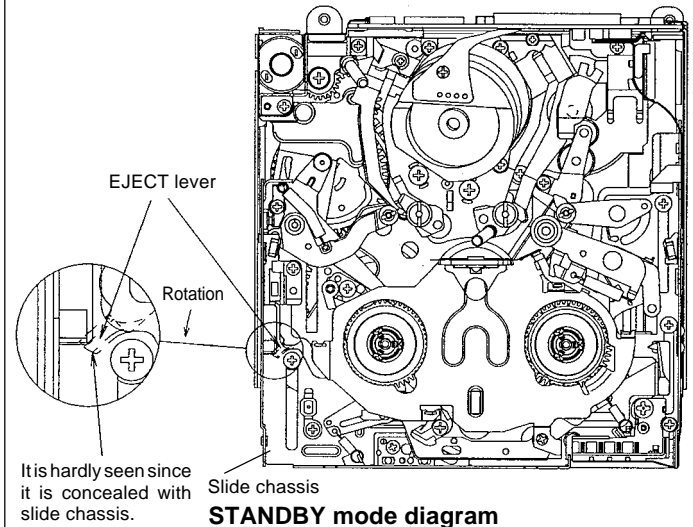
The mechanism position to take out the cassette where the EJECT lever is extremely shifted in the A direction. (It is impossible to lock the cassette controller assembly in this mode.)



**EJECT mode diagram**

#### (2) STANDBY mode

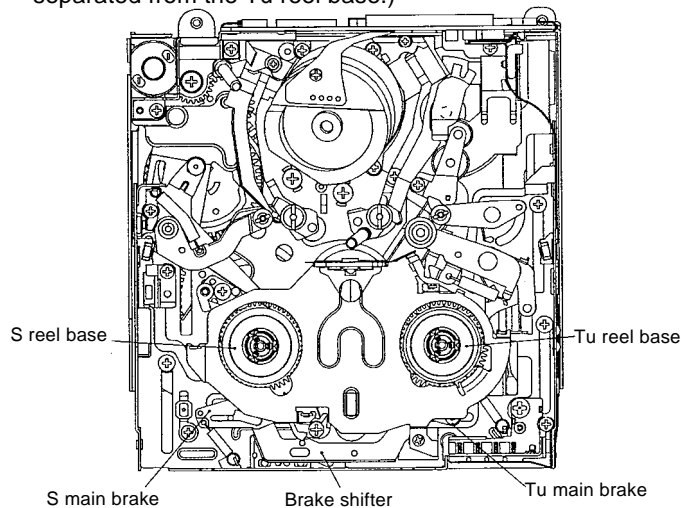
The mechanism position to set the cassette where the slide chassis is at the farthest position from the drum and the EJECT lever is in counterclockwise rotated position (position where the cassette controller assembly can be locked).



**STANDBY mode diagram**

#### (3) LOADING START mode

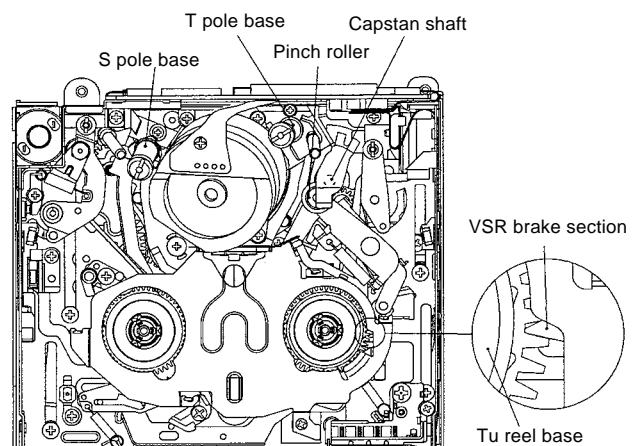
This is the mode where the tape is wound around the winding reel when a cassette with visible wind start leader tape is loaded. (The brake shifter moves to the left, the S main brake is separated from the S reel base and the Tu main brake is separated from the Tu reel base.)



**LOADING START mode diagram**

#### (4) REWINDING (VSR) mode

The mechanism position to rewind the tape (fast rewinding playback). The S and T pole base is pressed, the pinch roller is pressed to the capstan shaft, the brake shifter VSR brake section engages with the Tu reel base gear.

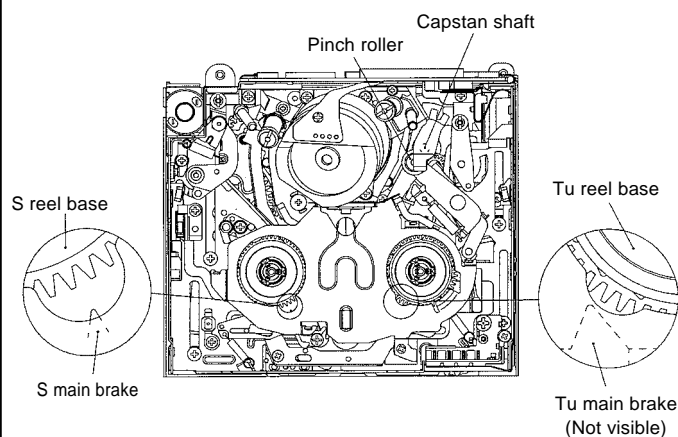


**REWINDING (VSR) mode diagram**

(5) **PLAYBACK (RECORD, FF, VSF) mode**

The mechanism position for playback, record, FF and fast feed playback.

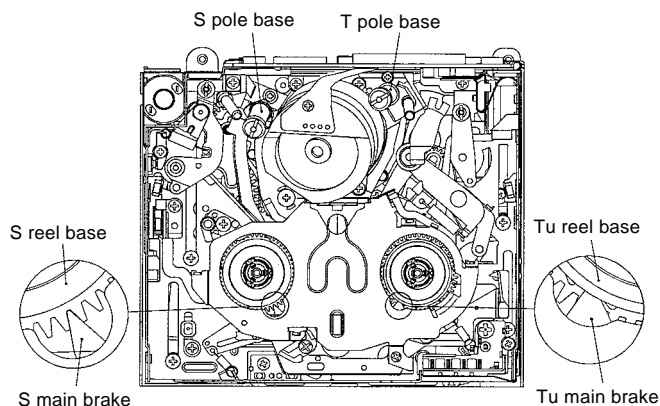
The pinch roller is pressed to the capstan shaft, and the S/Tu main brake is separated from the S/Tu reel base.



**PLAYBACK mode diagram**  
(RECORD, FF, VSF)

(6) **STOP mode**

The system is in the STOP (Rec Lock in CAMERA mode) position; the S and the T pole bases are snap-fitted to the drum base, the S brake is in contact with the S reel base, and the Tu brake is in contact with the Tu reel base.



**STOP mode diagram**

## 9-2. Cassette controller assembly

### <Removing>

- (1) Apply DC3V to the loading motor to enter the standby mode.

Press the lock lever in the arrow direction to raise the cassette controller. (See Fig. 1; **A** or **B** direction.)

- (2) Turn the damper lever in the arrow **C** direction to release the engagement of the damper bar. (See Fig. 2.)

- (3) Remove two screws **E**, and remove the down guide **D** in the arrow **F** direction. (See Figs. 3 and 4.)

Take care that the slide chassis is provided with the down guide positioning **G** or **H**.

- (4) Slide the cassette controller in the arrow **I** direction, remove the outer link shaft (both sides) toward the inside of the mechanism, and turn the cassette controller in the arrow **J** direction. (See Fig. 5.)

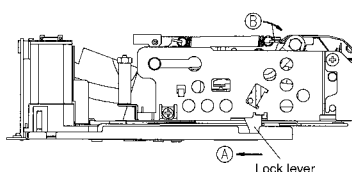
- (5) Slide the cassette controller in the arrow **K** direction. (See Fig. 6.)

### <Installing>

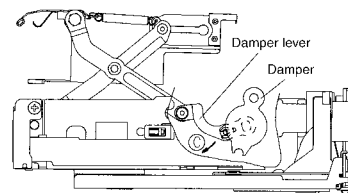
- (1) Apply DC3V to the loading motor to enter the standby mode.

- (2) For assembly, reverse the removing procedure (5) thru (2).

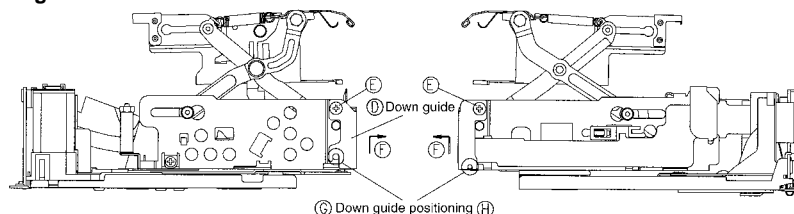
Tightening torque of two screws **E**:  $40 \pm 4 \text{ mN.m}$



**Fig. 1.**

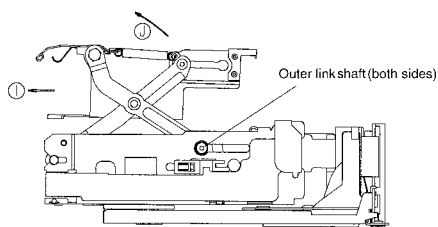


**Fig. 2.**

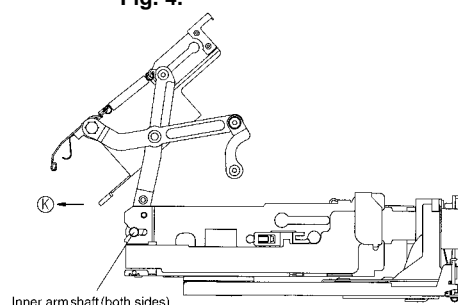


**Fig. 3.**

**Fig. 4.**



**Fig. 5.**



**Fig. 6.**

### 9-3. How to operate with the circuit board without the cassette controller assembly.

In this method, if the procedure is followed incorrectly there is danger of damaging the mechanism and the tape, so except in special cases, such as when measuring the VSR torque, do not perform this procedure. Normally operate this unit with the cassette controller assembly attached.

Be sure to follow each caution mentioned.

- (1) Apply DC3 ~ 4V to the loading motor to enter the standby mode.
- (2) Securely press the movable piece  $\textcircled{L}$  of the down SW with cellophane tape or similar to turn on SW. (Take care that the movable piece turns only in the shown arrow direction.)

Note: To enter REC mode, press the pin of the recognition switch  $\textcircled{M}$ .  
(Unnecessary in other modes.)

- (3) Set the test mode (T-01) with the adjustment remote controller without putting the tape, and the mechanical operation will become possible with the mode key.
- (4) For ejection, remove the tape of (2).

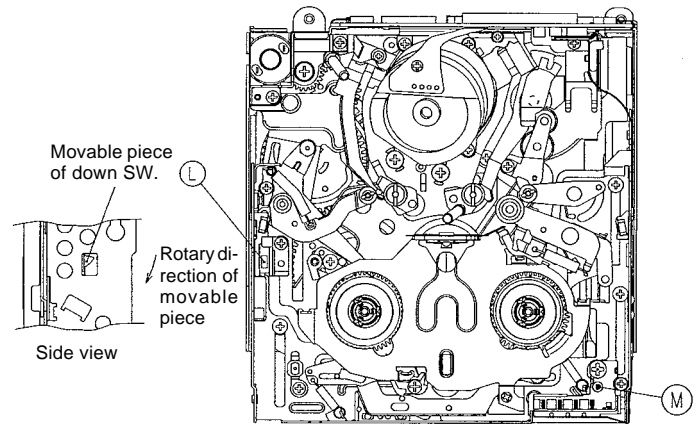


Fig. 7. LOADING START mode

### 9-4. Phase matching

Referring to Figs. 8 and 9, align the phase for the following parts.

- (1) Eject lever (2) Eject control lever (3) Mode SW (4) Main cam (5) Sub cam

Note: Before disassembly, sufficiently check the marker position.

Note: When installing the joining gears, verify that the phase matching holes of the main cam and subcam are aligned to the hole of the chassis.

Note: After the phase is aligned, turn the mode SW with hand, and verify that it turns nearly one turn.  
(After verification, return it to the original position.)

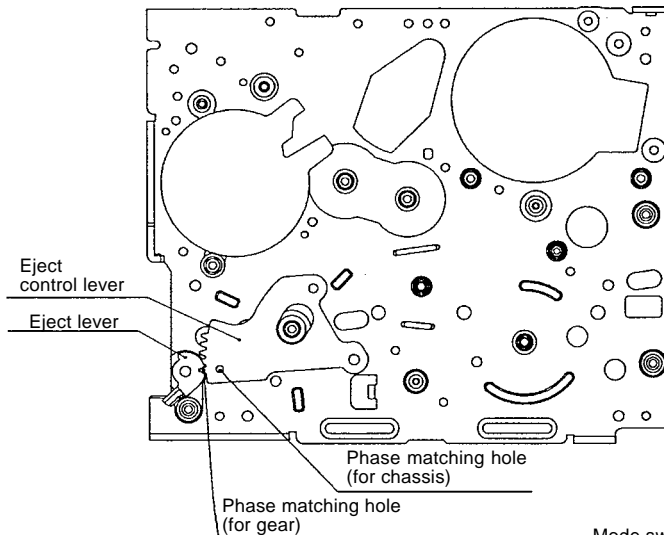


Fig. 8

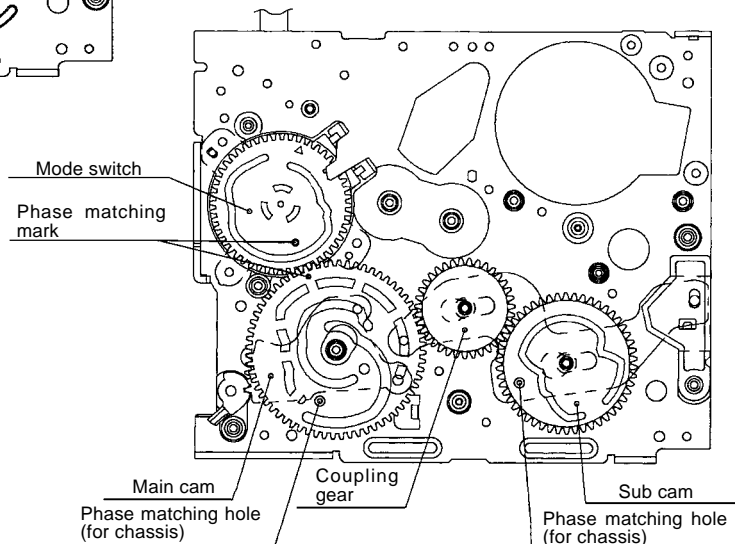


Fig. 9

9-5. Reassembly

9-5-1. Reassembly in side of the main chassis.

Note) Numbers before part names are given as a guide to the order of assembly.  
As for greasing/oiling/cleaning places refer to the attached drawings (Grease/Oil application side of the main chassis).

1.

Groove grease    Pinch drive lever (361)

Pinch control lever (303)

Main chassis Ass'y (Front surface) (301)

Mode SW (463)

LM/Mode FPC (465)

A-3    A-2    A-1

	Item	Tightening torque	Quantity
A	S Tight · M1.4 x L3	70mN·m	3

2.

Cam groove grease

Main cam (304)

Coupling gear (370)

EJECT control lever (302)

EJECT lever (360)

AHC cam (369)

Shifter drive lever Ass'y (305)

Sub cam (371)

	Item	Tightening torque	Quantity
B	⊙ CW⌀1.2-⌀3.0-10.25		1

3.

T arm control lever (461)

Groove grease

Loading motor Ass'y (461)

Loading motor fitting Ass'y

Capstan motor (462)

Slide chassis guide (386)

Loading lever (306)

Groove grease

	Item	Tightening torque	Quantity
C	⊙ Special screw · M1.4 x L1.6	40mN·m	2
D	⊙ Special screw with step · M1.4 x L6.25	70mN·m	1

4.

H/A PWB angle (315)

Center pulley Ass'y (367)

Drive belt (459)

Intermediate gear angle sub Ass'y (312, 364, 365, 421)

Intermediate gear stopper (366)

Intermediate pulley Ass'y (311)

Capstan FPC stopper (311)

	Item	Tightening torque	Quantity
C	⊙ Special screw · M1.4 x L1.6	40mN·m	1
E	⊙ S Tight · M1.4 x L4	70mN·m	2
F	⊙ S Tight · M1.4 x L2	70mN·m	1

5.

Phase match check

Enter part of convexity rear surface

Guide rail sub Ass'y

Guide rail sub Ass'y (Rear surface)

	Item	Tightening torque	Quantity
G	⊙ Special head screw · M1.4 x L1.5	40mN·m	2

6.

Sup pole base Ass'y (451)

Guide roller Ass'y (454)

Tu pole base Ass'y (452)

S loading arm Ass'y (307)

S pressure spring (395)

S loading gear (372)

Tu loading arm Ass'y (308)

Tu pressure spring (396)

Tu loading gear (373)

	Item	Tightening torque	Quantity
H	⊙ CW⌀0.7-⌀2.2-10.25		2
I	⊙ Special screw · M1.2 x L1.8 (Tentative tightening)	5mN·m	2

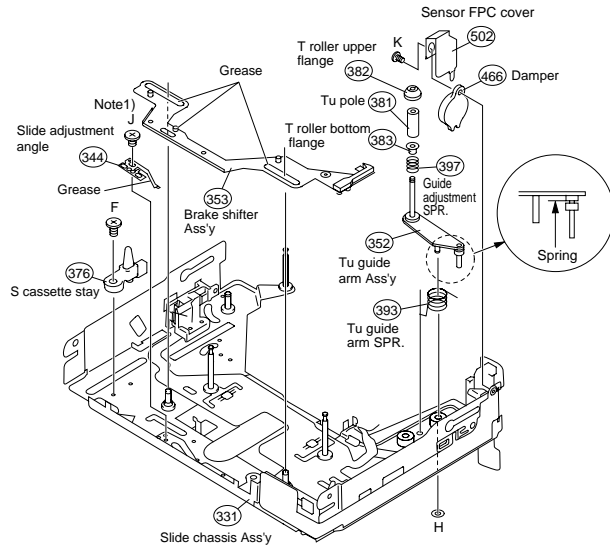


## 9-5-2. Reassembly in side of the Slide chassis.

Note) Numbers before part names are given as a guide to the order of assembly.

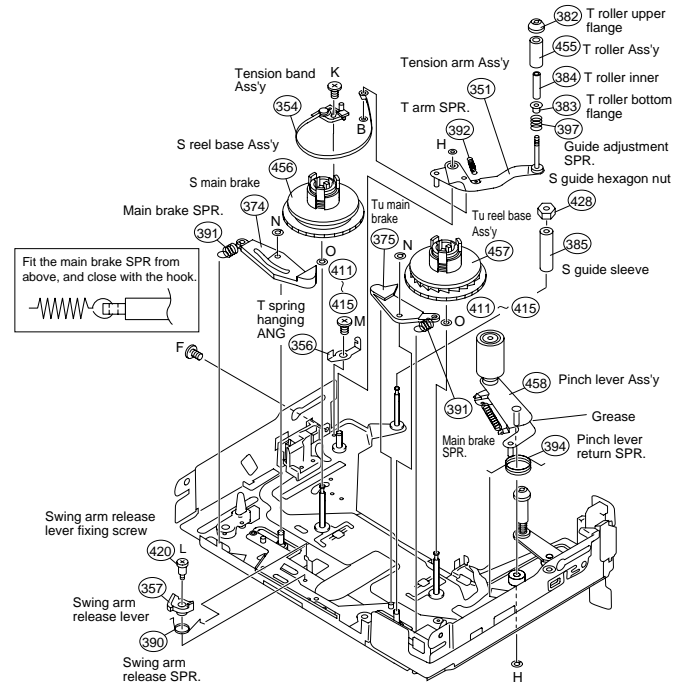
As for greasing/oiling/cleaning places refer to the attached drawings (Grease/Oil application side of the slide chassis)

1.



	Item	Tightening torque	Quantity
F	S Tight · M1.4 x L2	40mN·m	1
H	CWø0.7-ø2.2-t0.25		1
J	Special screw · M1.2 x L1 Note 1: Use the No. 00 bit.	40mN·m	1
K	Special head screw · M1.4 x L2	40mN·m	1

2.



Note 1: Take care for scratch and hit mark on (381), (382), (383), (384) and (455). Handle the tension band with care against deformation.

Note 2: After lightly tightening (428) arm area against deformation, apply screw-lock on the tip of the shaft.

	Item	Tightening torque	Quantity
B	CWø1.2-ø3.0-t0.25		1
F	S Tight · M1.4 x L2	40mN·m	1
H	CWø0.7-ø2.2-t0.25		2
K	Special head screw · M1.4 x L2	40mN·m	1
L	Special screw with step · M1.4 x L1	40mN·m	1
M	Type 2 minuteness M1.4 x L1	40mN·m	1
N	CWø0.7-ø1.8-t0.1		2
O	Wø1.2-ø2.5-t0.3		2

9-5-3. Main chassis assembly and slide chassis assembly assembling method

- (1) Enter the coupling mode. (In this position, the cam groove of the T arm operation lever in the figure is parallel to the side of the main chassis, and the poll base is slightly moved.)
- (2) Insert the slide chassis side operation pins (① tension arm, ② Tu guide arm, ③ pinch lever) in the position shown below at the main chassis side, move the slide chassis in the arrow direction, using ④ to ⑥ as guides, insert the loading lever operation pin into the groove of slide chassis, and install with the 4 screws.

1.

	Item	Tightening torque	Quantity
C	Special screw · M1.4 x L1.6	40mN·m	4

2.

	Item	Tightening torque	Quantity
A	S Tight · M1.4 x L3	40mN·m	1
N	CWø0.7-ø1.8-t0.1		1
P	Type 1 minuteness M1.4 x L1	40mN·m	1

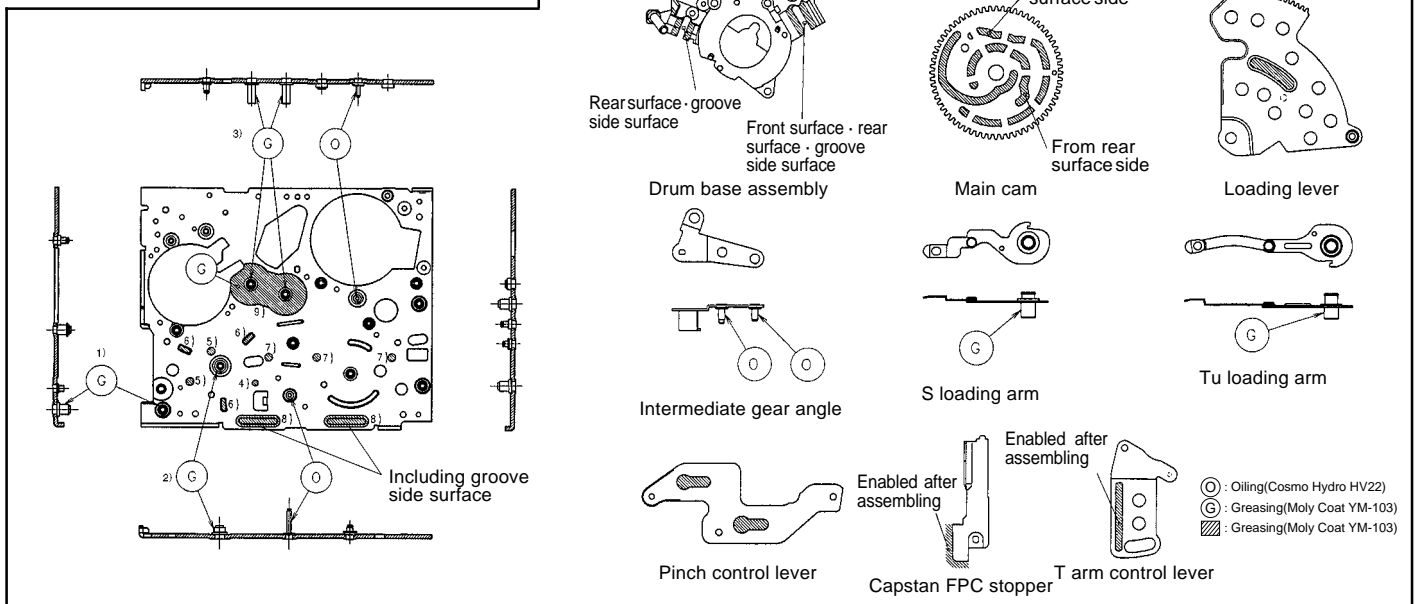
3.

	Item	Tightening torque	Quantity
A	S Tight · M1.4 x L3	70mN·m	3
F	S Tight · M1.4 x L2	70mN·m	5

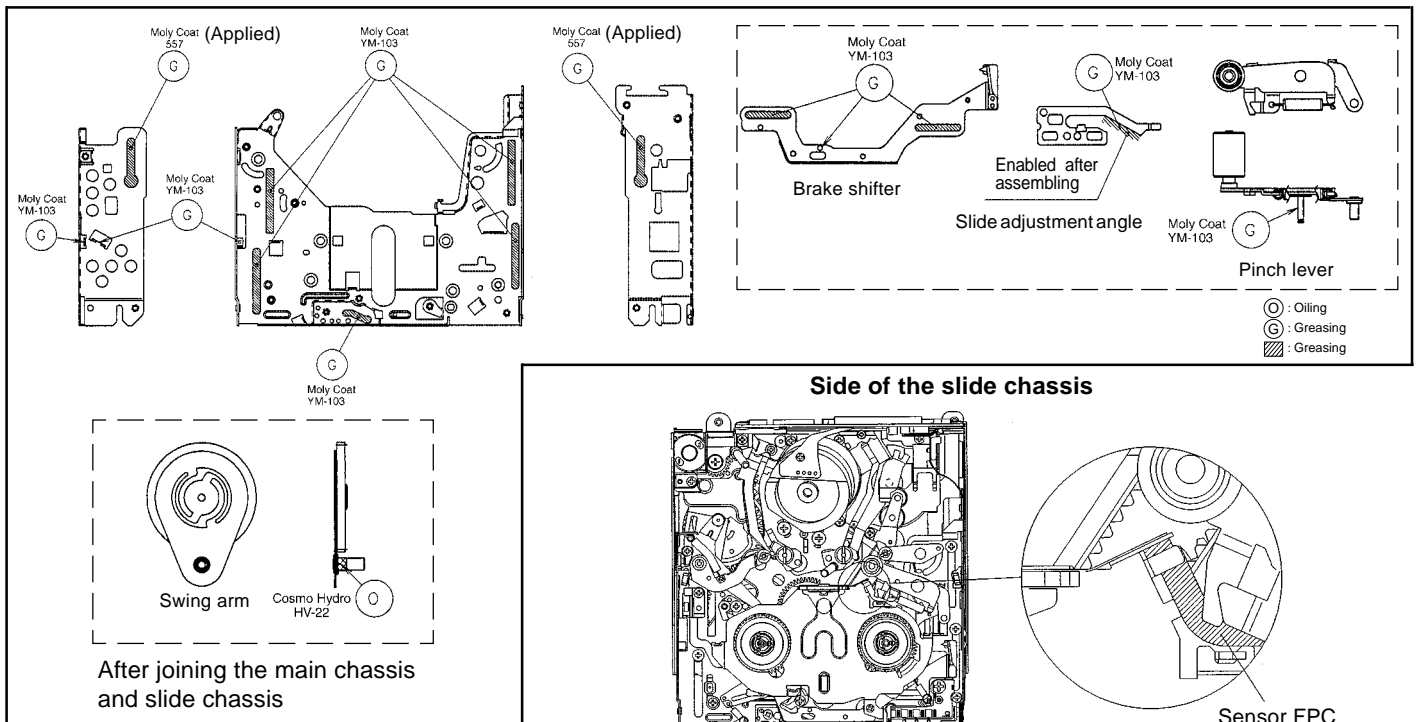
4.

	Item	Tightening torque	Quantity
Q	Special screw · M1.4 x L2	40mN·m	3

## GREASE/OIL APPLICATION



Side of the main chassis



Side of the slide chassis

### 9-6. Removing the cassette

- (1) Apply DC3V to the loading motor unload slightly.
- (2) After the tape is slackened, turn the rotor (lower side of mechanism) of capstan motor to tighten the tape. (Arrow direction, Fig. 1)
- (3) Repeat the operations (1) and (2). After the pole base has been completely unloaded, ascertain that the tape is not loose.
- (4) Finally apply again DC3V to the loading motor, so that the cassette controller ejects.
- (5) Take out the cassette.

Note) DC3V is applied to the loading motor as shown Fig 1. Then, the mechanism moves in the unloading direction.

Sensor FPC wiring

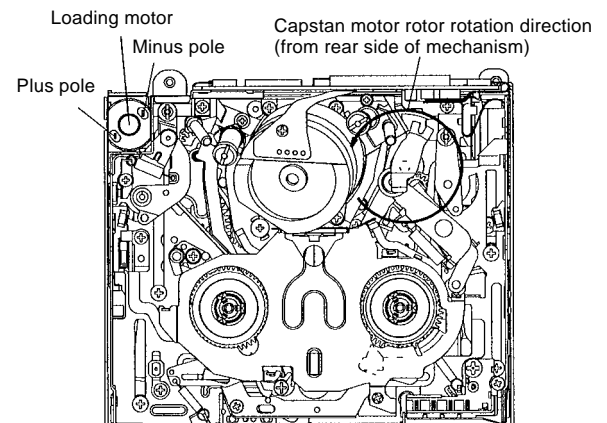


Fig. 1

## 10. ADJUSTING THE ELECTRICAL CIRCUITS

### Before starting the electric circuit adjustment

- The adjustment methods described herein are used, in most cases, when the expendable mechanical parts, including the video head, have been replaced, at which time the electrical circuits need to be readjusted. Before adjusting the electrical circuits, make sure that the mechanism works properly (i.e., the mechanism is properly adjusted). In case of the occurrence of any problem to the electrical circuits, be sure to use the specified measuring instruments to locate the area to which the problem is occurring, and then take the necessary action, including repair, replacement or adjustment, exactly as instructed in the electrical adjustment methods that will follow.

Do not attempt to make adjustments without using the proper measuring instruments.

- This machine is configured so that the electrical circuits inside its PWB unit are composed, for the most part, of high-density, small surface-mounted component parts for downsized machine body.

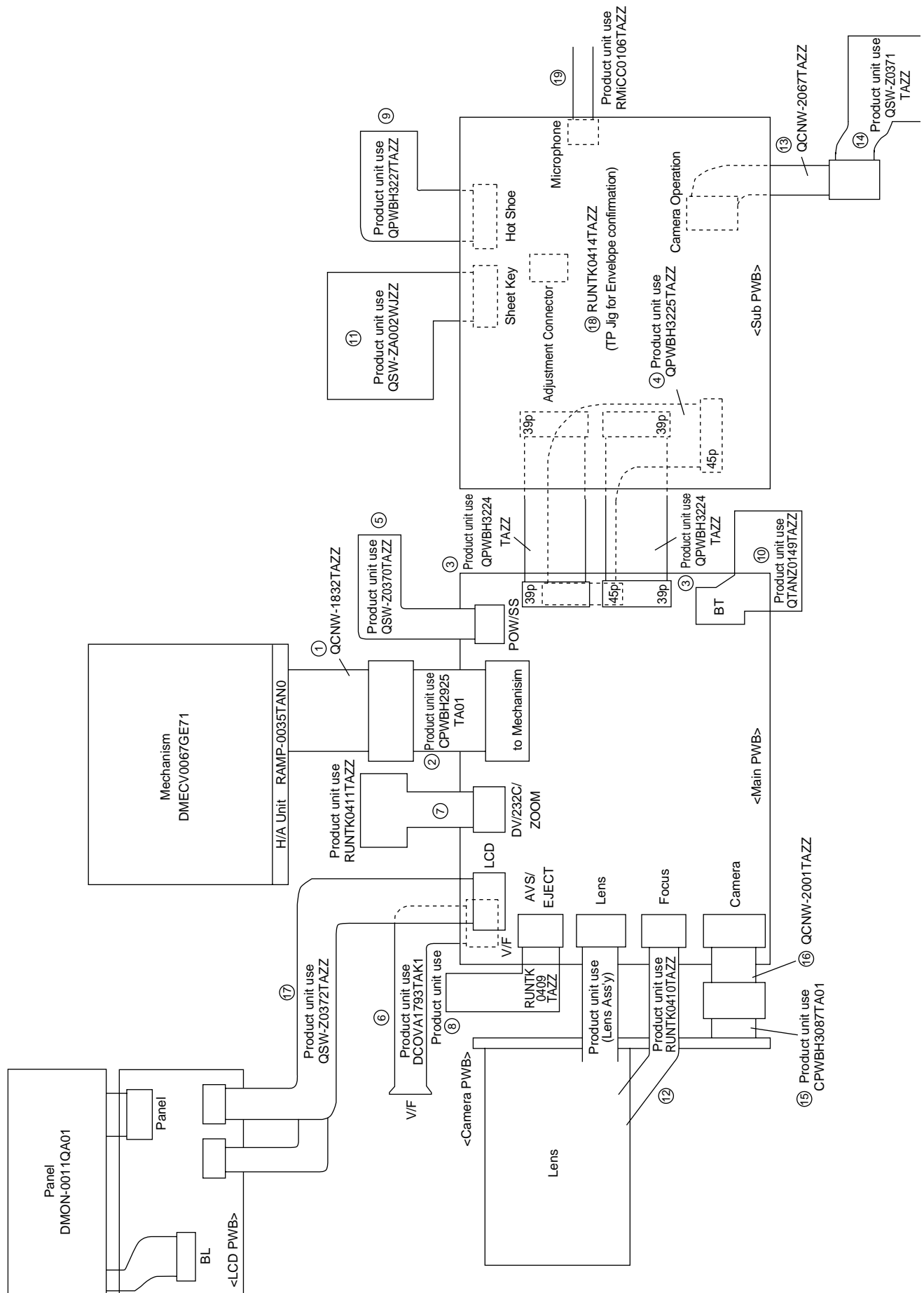
To perform repair service or parts replacement, do so using a soldering iron, but in as short a time as possible; this is because surface-mounted component parts are generally so small in size and susceptible to heat, as compared with the large discrete parts used in TV sets, desk-top video decks, etc., that attempting to heat their electrodes for a longer time than is necessary with a soldering iron may result in their becoming defective.

This applies particularly when replacing the laminated chip capacitors.

For this purpose, ceramic soldering irons with a temperature regulator are recommended (iron tip temperature 250°C and soldering time 5 seconds or shorter).

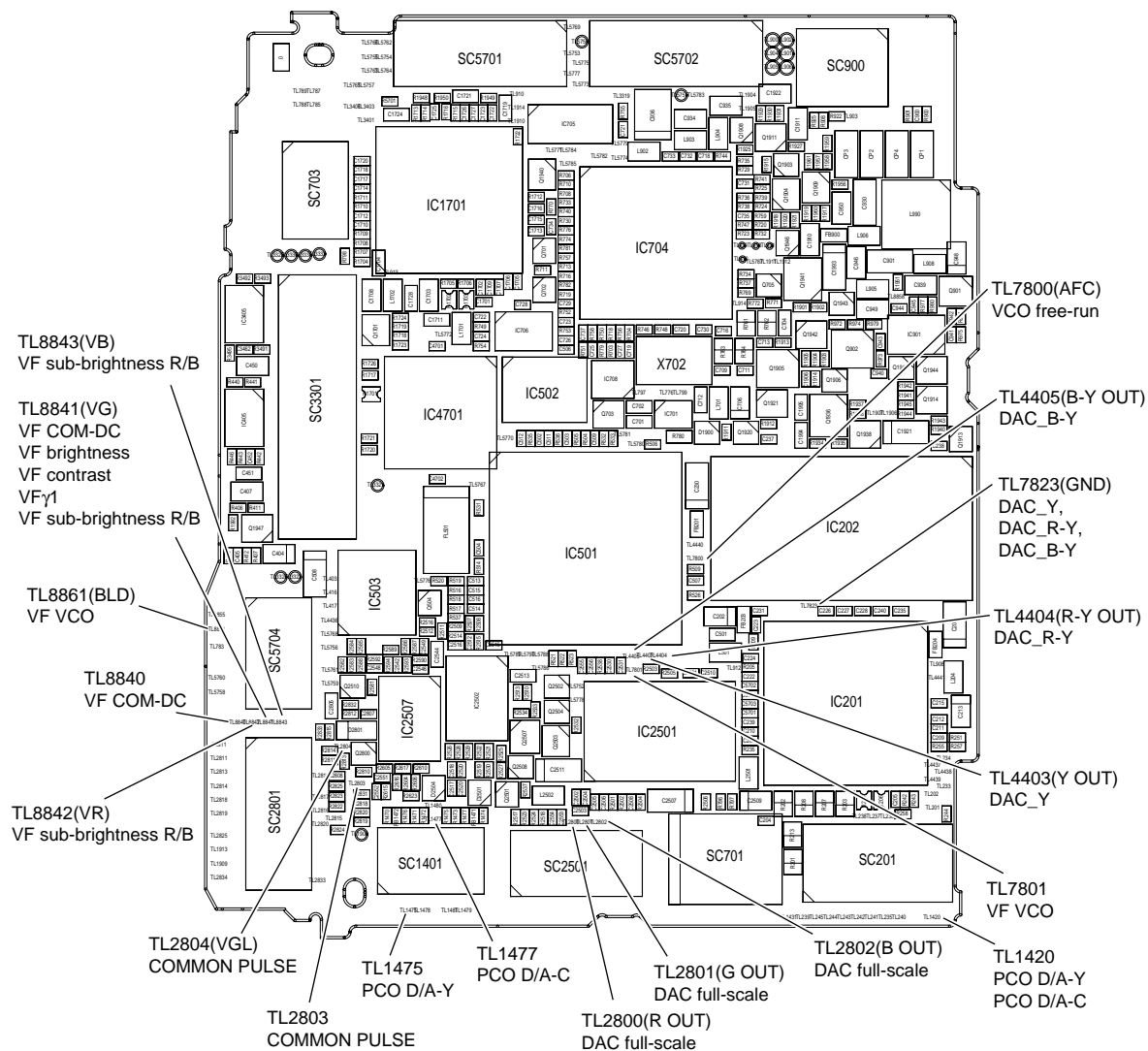
### VL-AX1U Specifications of service jigs

No.	Connection section	Connector REF. No.	No. of pins	New or Continuation	Part cord	Price code
1	H/A PWB–H/A FPC	P306	80B-B	C	QCNW-1832TAZZ	BV
2	H/A FPC–MAIN	SC3301	80B-B		CPWBH2925TA01 Product unit use	AR
3	MAIN PWB–SUB PWB	SC5701, SC5702	39P		QPWBH3224TAZZ Product unit use	AE
4	MAIN PWB–SUB PWB	SC5703	45P		QPWBH3225TAZZ Product unit use	AF
5	Power SW–MAIN PWB	SC703	17P		QSW-Z0370TAZZ Product unit use	AR
6	V/F–MAIN PWB	SC8801	21P		DCOVA1793TAK1 Product unit use	AS
7	DV/232C/ZOOM SW–MAIN PWB	SC5704	21P		RUNTK0411TAZZ Product unit use	AT
8	AVS/EJECT SW–MAIN PWB	SC1401	21P		RUNTK0409TAZZ Product unit use	AT
9	Hot shoe–SUB PWB	SC6602	12P		QPWBH3227TAZZ Product unit use	AG
10	Battery Terminal–MAIN PWB	SC900	20B-B		QTANZ0149TAZZ Product unit use	AQ
11	VCR operation–SUB PWB	SC3707	10P		QSW-ZA002WJZZ Product unit use	AV
12	Focus Ring Unit–MAIN PWB	SC701	10P		RUNTK0410TAZZ Product unit use	AQ
13	Camera Operation FPC–SUB PWB	SC3702	30B-B	N	QCNW-2067TAZZ	BS
14	Camera Operation FPC–Camera Operation Unit		30B-B		QSW-Z0371TAZZ Product unit use	AZ
15	CAMCCD PWB–CAMCCD FPC	SC1002	39P		CPWBH3087TA01 Product unit use	AL
16	CAMCCD FPC–MAIN PWB	SC201	40B-B	C	QCNW-2001TAZZ	BY
17	LCD PWB–MAIN PWB	SC2801	33P		QSW-Z0372TAZZ Product unit use	AT
18	TP Jig for Envelope confirmation	SC3703	14B-B	N	RUNTK0414TAZZ	BA
19	Built-in microphone–SUB PWB	P6601	4P		RMICC0106TAZZ Product unit use	AQ

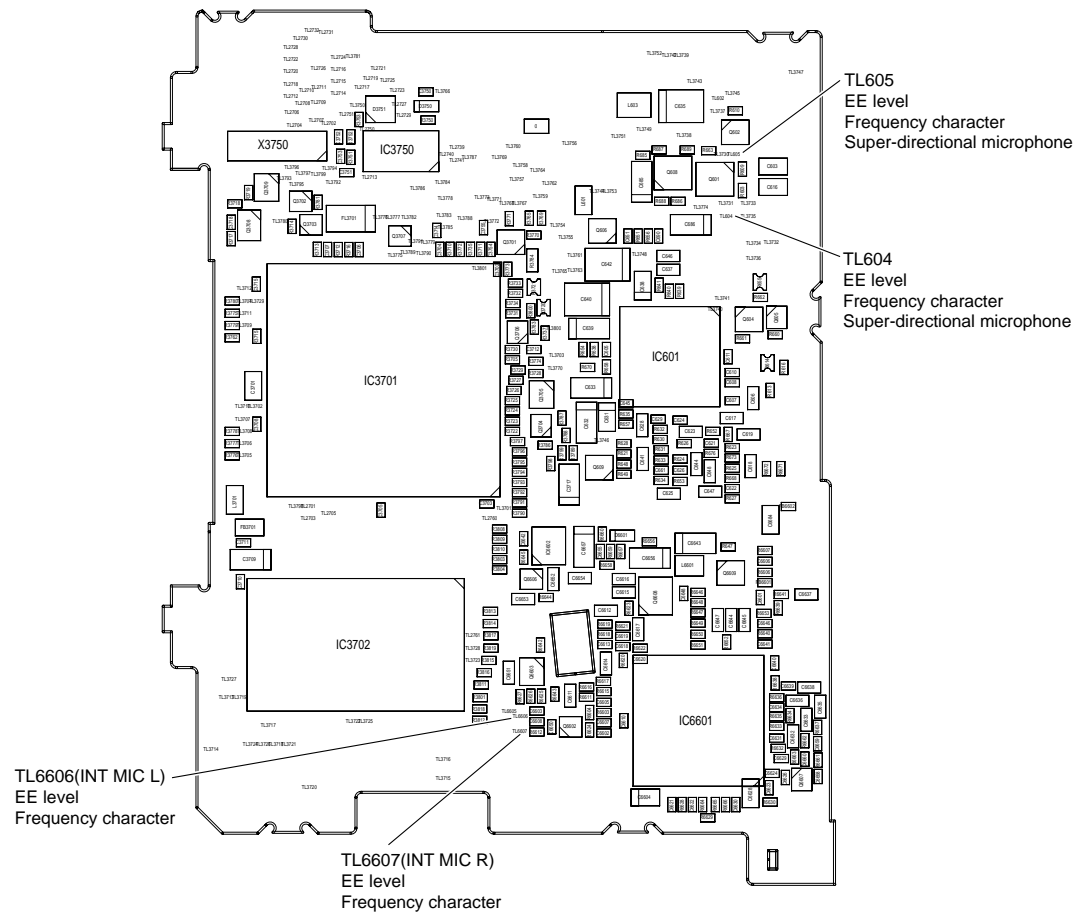


## [TEST POINT]

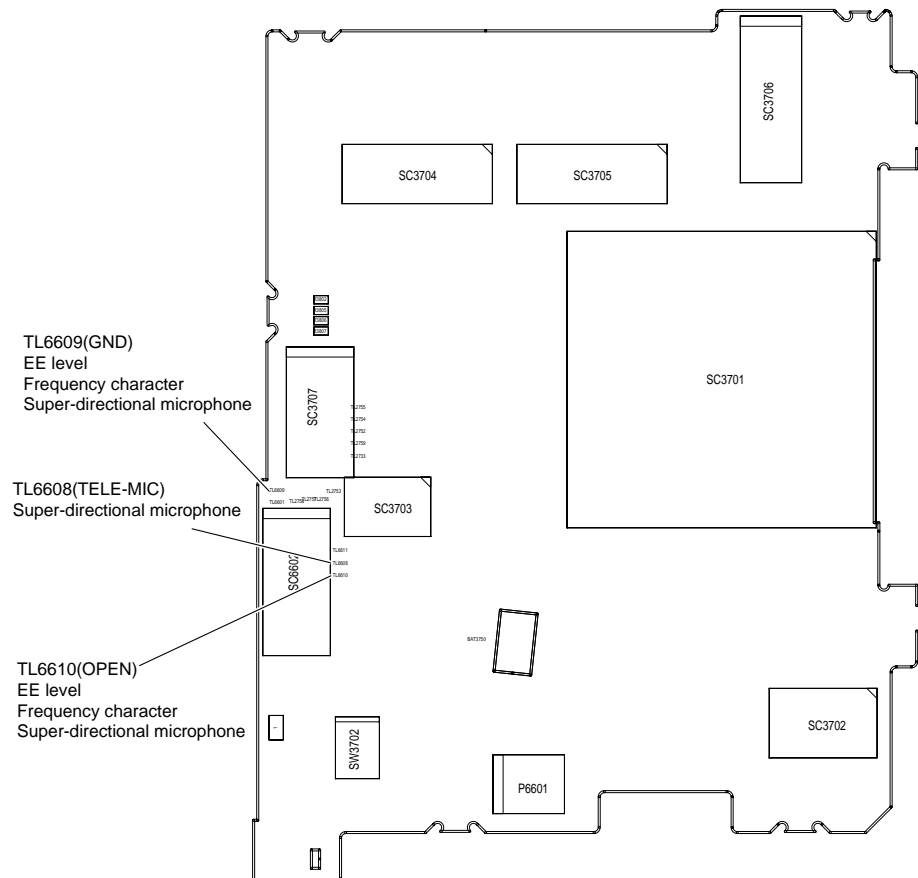
(Wiring board diagram: Main Side B)



**(Wiring board diagram: Sub Side A)**



**(Wiring board diagram: Sub Side B)**



**[Making adjustments]****Adjusting the servo system controller and related parts****1. Setting the system codes**

Replacement of IC705 E<sup>2</sup>PROM requires the following data to be set in this order.

**[Procedure]**

Set the unit to the VCR mode and set the data for each address.

Code	1. Model code		2. Destination code		3. Specifications code		4. Menu selection code		5. Software switching code		6. Calendar switching	
Address	01	09	02	0A	03	0B	04	0C	05	0D	07	0F
Data	00	FF	01	FE	1C	E3	00	FF	00	FF	02	FD

When replacing the IC705 E<sup>2</sup>PROM, first make the following settings and then start the adjustments.

**(1) Electromagnetic conversion**

Address	27	28	2B	*105	25	26
Data	40	90	90	80	40	90

\* The address uses only when replacing the IC302.

**• Manual adjustment**

Mode	VCR ADJ mode
Procedure	1) Set the CAM/OFF/VCR selection switch to VCR. 2) Press "CONTINUE" → "VCR adjustment" on the remote controller to set the VCR adjustment mode. (At this time an indication "VCR ADJ" appears at the left lower side.) Enter a setting corresponding to the address. <Setting method> 3) Adjust the address by moving up and down the blinking numeral with the FF and REW key, and fix the address by pressing the PB key. 4) Adjust to the setting by moving up and down the blinking numeral with the FF or REW key, and set data by pressing the PB key. 5) Press the STOP key to set the address set state. 6) Repeat the operations 3), 4) and 5) as much as input addresses. After completion of input of all items hold down the "CONTINUE" key to cancel the VCR adjustment mode. 7) Set the CAM/OFF/VCR selection switch to OFF.
Examples	• During E <sup>2</sup> PROM (IC705) replacement.

**2. HSWP adjustment**

Mode	VCR ADJ mode
Procedure	1) Play back the alignment tape in the video mode. 2) Press the "CONTINUE" and "HSWP ADJ" keys on the adjustment remote control in this order. → This executes the HSWP adjustment. When the adjustment is successful, the LCD lights up [OK] and the cassette is automatically ejected. If not properly adjusted, the LCD lights up [NG].
Examples	• During mechanism replacement. • During E <sup>2</sup> PROM replacement (IC302 inside the head amplifier circuit board).

**3. SHUT OFF adjustment**

Mode	VCR ADJ mode
Procedure	1) Load a recordable tape, and set the camera mode. 2) Press the "CONTINUE" and then the "TEST SEL" on the remote control for adjustment to enter the TEST mode (T-01 blinks). 3) Select T-03 with the FF or REW key and then press the PB key. (By the remote control) 4) Observing the power voltage from TL900(-), set it so that TL904(+) obtains 6.00V ± 50mV. 5) Press the playback key on the main unit. Turn off the power and the adjustment is completed.
Examples	• During microcomputer (IC704) or E <sup>2</sup> PROM (IC705) replacement.



# ADJUSTING THE ELECTROMAGNETIC CONVERSION CIRCUIT SYSTEM

## 1. PLL VCO adjustment

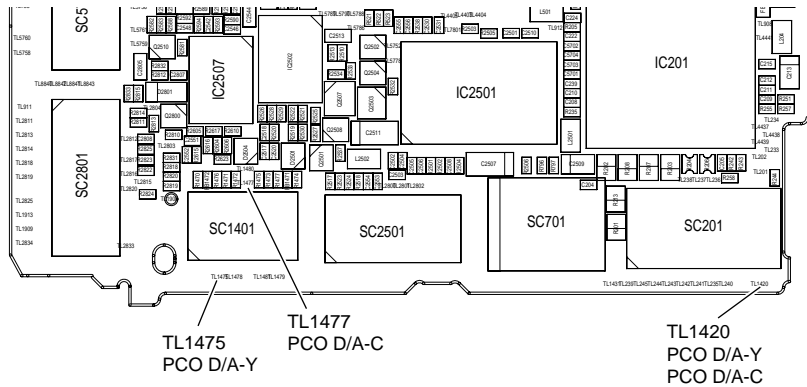
Mode	VCR ADJ mode
Procedure	1) Playback the alignment tape (or a self-recorded tape). 2) Call the adjustment mode (V-ADJ). 3) Set the address "2A" and call the data. 4) Set the called data with the FF/REW key to the point where the playback screen appears. (At this time, the screen full of block noise is OK.)
Examples	• During E <sup>2</sup> PROM replacement. • During circuit board (Main) replacement.

## 2. Phase and equalizer adjustment → (Performed in the VCR mode)

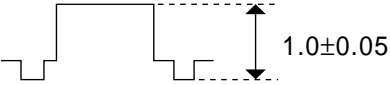
Mode	VCR ADJ mode											
Procedure	<div><div>1) Load a self-recorded tape into the deck.</div><div>2) After playback for 3 minutes, select the test mode 0F using the remote control for adjustment to start the automatic adjustment. (The following sequence is automatically performed.)</div></div> <div><div><div>The built-in VI/O colour bar is recorded.</div><div>⇒</div><div>VS REW</div><div>⇒</div><div>PB</div><div>⇒</div><div>Phase and equalizer are adjusted automatically.</div><div>⇒</div><div>Judgment</div><div><div>OK: Blue LCD comes on.</div><div>⇒</div><div>Tape is EJECT.</div><div>NG: Red LCD comes on.</div></div></div></div> <div><div>3) A power source is put again after a power source is cut once.</div><div>4) Error rate check</div><div>Select and fix the TEST MODE 0B on the adjustment remote control.</div><div>5) Manual adjustment method (video adjustment mode)</div><div>* Perform this adjustment with the self-recording/playback in the LP mode.</div><div>For phase, vary the data for the address 26 and 2B, and for equalizer, vary the data for the address 25 and 27, to set the error rate is made as small as possible.</div></div> <div><div><table><tr><td></td><td>Phase</td><td>Equalizer</td></tr><tr><td>H ch side</td><td>2B</td><td>27</td></tr><tr><td>L ch side</td><td>26</td><td>25</td></tr></table><div><div>Synchronization error</div><div>Error rate</div><div><div><div>H</div><div>L</div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div></div><div><div>Synchronization error 20 or less</div><div>Error rate 200 or less (SP Mode)</div><div>330 or less (LP Mode)</div></div></div></div></div> <tr><td>Examples</td><td><div>• During mechanism replacement.</div><div>• During circuit board (Main) replacement.</div><div>• During E<sup>2</sup>PROM replacement.</div></td></tr>		Phase	Equalizer	H ch side	2B	27	L ch side	26	25	Examples	<div>• During mechanism replacement.</div> <div>• During circuit board (Main) replacement.</div> <div>• During E<sup>2</sup>PROM replacement.</div>
	Phase	Equalizer										
H ch side	2B	27										
L ch side	26	25										
Examples	<div>• During mechanism replacement.</div> <div>• During circuit board (Main) replacement.</div> <div>• During E<sup>2</sup>PROM replacement.</div>											

ADJUSTING THE VIDEO I/O CIRCUIT SYSTEM

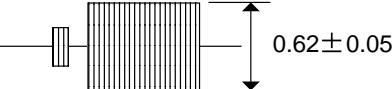
(Wiring board diagram: Main Side B)



1. PCO D/A-Y adjustment

Test point	TL1475 (connected to oscilloscope)	Address	VCR ADJ 22
Mode	EE mode		
Procedure	<div>1) Connect TL1420 to GND.</div> <div>2) Connect the AVS cable and then connect it to the monitor (TO).</div> <div>3) Call the adjustment mode (V-ADJ).</div> <div>4) Set the address to "22", and call the date. (100% white signal is output.)</div> <div>5) Vary the date with the FF and REW keys to set the signal appearing at TL1475 to 1.0Vp-p ± 0.05Vp-p.</div> <div></div>		
Examples	• During E²PROM replacement. • During IC4401 replacement. • During IC1401 replacement.		

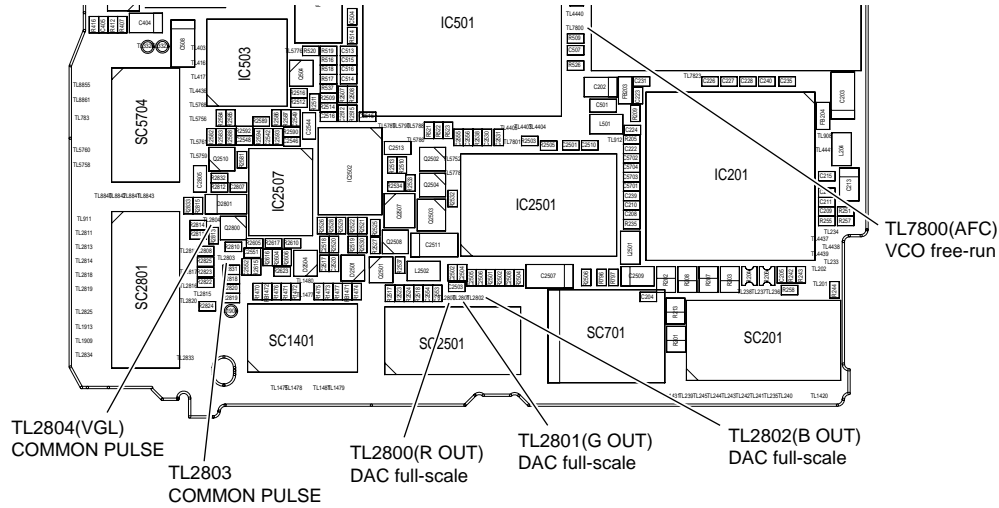
2. PCO D/A-C adjustment

Test point	TL1477	Address	VCR ADJ 23
Mode	EE mode		
Procedure	<div>1) Connect TL1420 to GND.</div> <div>2) Connect the AVS cable and then connect it to the monitor (TO).</div> <div>3) Call the adjustment mode (V-ADJ).</div> <div>4) Set the address to "23", and call the data.</div> <div>5) Vary the data with the FF and REW keys to set the signal appearing at TL1477 to 0.62Vp-p ± 0.05Vp-p.</div> <div></div>		
Examples	• During E²PROM replacement. • During IC4401 replacement. • During IC1401 replacement.		

## ADJUSTING THE LCD CIRCUIT

\* To make this adjustment, set the backlight switch to the "NORMAL" position.

(Wiring board diagram: Main Side B)



Adjustment procedure and connecting same as the VCR section.

### 1. VCO free-run adjustment

Test point	TL7800(AFC)	Address	VCR ADJ 32
Mode	VCR AV input		
Procedure	1) Input the white 100% signal to AV input. 2) Connect the digital voltmeter to TL7800, and adjust DC voltage value to the specified adjustment value with VCR ADJ 32.		
Adjustment rating	$2.00 \pm 0.1V$		
Examples	• During E <sup>2</sup> PROM (IC705) replacement.   • During VIO ENG (IC4401) replacement. • During DAC (IC4701) replacement.		


### 2. DAC full-scale adjustment

Test point	TL2800(R OUT), TL2801(G OUT), TL2802(B OUT)		
Address	VCR ADJ 3D(R), VCR ADJ 3E(G), VCR ADJ 3F(B)		
Mode	VCR AV input		
Procedure	1) Set the VCR ADJ 83/93/C0 to 00/77/00. (At this time, LCD can not be displayed.) 2) With the VCR ADJ 3D, adjust the output voltage of TL2800 and the DC voltage value of the digital voltmeter to the specified adjustment values. 3) Similarly with the VCR ADJ 3E/3F, adjust the output voltage of TL2801/2802 and the DC voltage value of the digital voltmeter to the specified adjustment values. (Same as Item (2)) 4) Return the VCR ADJ 83/93/C0 to the initial value. (Initial value: C5/7F/28)		
Adjustment rating	$0.78V \pm 10mV$		
Examples	• During E <sup>2</sup> PROM (IC705) replacement.   • During VIO ENG (IC4401) replacement. • During DAC (IC4701) replacement.		

### 3. COMMON PULSE adjustment

Test point	TL2804(VGL)	Address	VCR ADJ 29(C)
Mode	VCR AV input		
Procedure	1) Connect TL2803 to GND. 2) Set the VCR ADJ 93 to A0. 3) With VCR ADJ 29, adjust the output voltage of TL2804 and the DC voltage value of the digital voltmeter to the specified adjustment values. 4) Return the VCR ADJ 93 to the initial value. (Initial value: 7F)		
Adjustment rating	$6.95V \pm 50mV$		
Examples	• During E <sup>2</sup> PROM (IC705) replacement.   • During DAC (IC4701) replacement.		

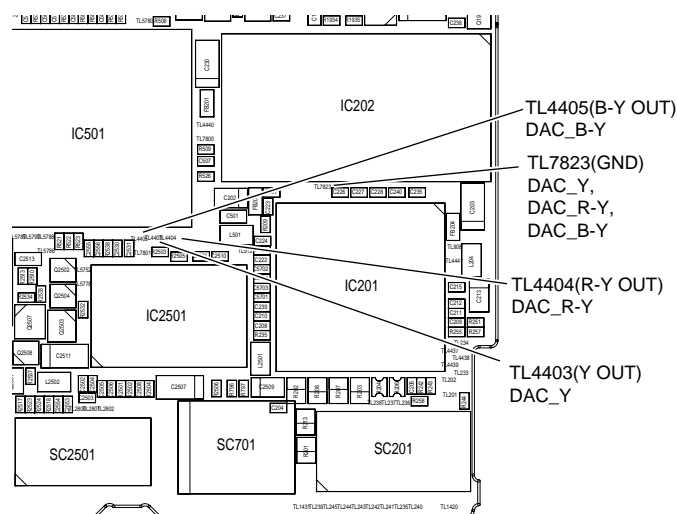
#### 4. COM-Bias adjustment

Test point	LCD panel display area	Address	VCR ADJ 33
Mode	VCR AV input		
Procedure	1) Input white 40% signal into the AV input. 2) Set the illuminometer (TOPCON IM-3) on the LCD panel surface. (Shut off the external light.) 3) Minimize the ripple of output waveform of illuminometer.		
Adjustment rating	Minimum  Response time : 0.6 sec.		
Remark	Make this adjustment after 5-minute or longer aging.		
Examples	• During LCD panel replacement. • During IC705, IC4401, IC4701 replacement.		

#### 5. White Balance adjustment

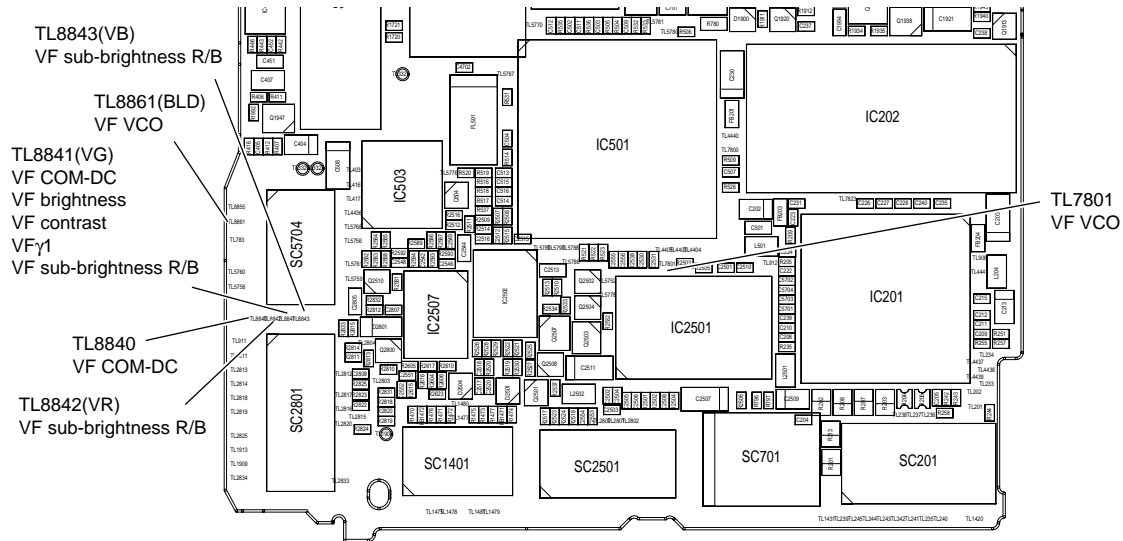
Test point	LCD panel display area	Address	VCR ADJ 84(R), VCR ADJ 86(B)
Mode	VCR AV input		
Procedure	1) Input white 40% signal into the AV input. 2) Input white 40% signal into the standard monitor, and adjust it until it becomes the same as that screen.		
Adjustment rating	Standard monitor		
Remark	Make this adjustment after 5-minute or longer aging.		
Examples	• During LCD panel replacement.   • During IC705, IC4401, IC4701 replacement.		

### VIDEO I/O ENG DAC CIRCUIT (Wiring board diagram: Main Side B)



#### 6. DAC\_Y adjustment, DAC\_R-Y adjustment, DAC\_B-Y adjustment

Test point	TL4403(Y OUT), TL4404(R-Y OUT), TL4405(B-Y OUT), TL7823(GND)		
Mode	CAM		
Address	VCR ADJ FA(Y), VCR ADJ FB(R-Y), VCR ADJ FC(B-Y)		
Procedure	1) Set VCR ADJ 303/304/432/423/424/425/426 to 0C/EF/63/90/EB/80/80. 2) With VCR ADJ FA, adjust the output voltage of TL4403 and the DC voltage value of the digital voltmeter to the specified adjustment values. 3) Similarly with VCR ADJ FB/FC, adjust the output voltage of TL4404/TL4405 and the DC voltage value of the digital voltmeter to the specified adjustment values. (Same as Item (2)) 4) Return VCR ADJ 303/304/432/423/424/425/426 to the initial value. (Initial value: FF/FF/43/10/29/6E/F0) Note: When it is changed to the initial value FF/FF/43/10/29/6E/F0, OSD display goes out together with LCD/VF. Checking the monitor output, adjust it. After adjustment, be sure to return to FF.		
Adjustment rating	0.450V ± 5mV (Y OUT), 0.229V ± 2mV (R-Y OUT), 0.290V ± 2mV (B-Y OUT)		
Examples	• During IC705, IC4401, IC4701 replacement.		

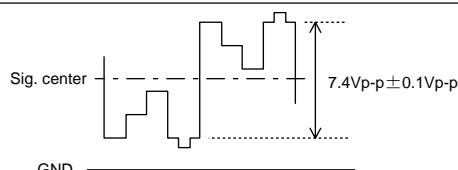
**(Wiring board diagram: Main Side B)****7. VF VCO adjustment**

Test point	TL8861(BLD)	Address	VCR ADJ E1
Mode	VCR AV input		
Procedure	1) Connect TL7801 to GND. (No signal) 2) Connect TL8861 to the frequency counter, and adjust the frequency to the specified adjustment value with the VCR ADJ E1.		
Adjustment rating	$15.734 \pm 0.1\text{KHz}$		
Examples	• During IC705 or IC8800 replacement.		

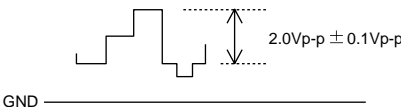
**8. VF COM-DC adjustment**

Test point	TL8840	Address	VCR ADJ F6
Mode	VCR AV input		
Procedure	1) Input the signal of a 3-step waveform. 2) Read the DC voltage value of the output of TL8841 with the digital voltmeter. ( $V_{G_{DC}}$ ) 3) Similarly read the DC voltage value of the output of TL8840 with the digital voltmeter. ( $V_{COM_{DC}}$ ) 4) Adjust the value of ( $V_{COM_{DC}} - V_{G_{DC}}$ ) to the specified adjustment value.		
Adjustment rating	$-0.15 \pm 0.1\text{V}$		
Examples	• During IC705 or IC8800 replacement.		

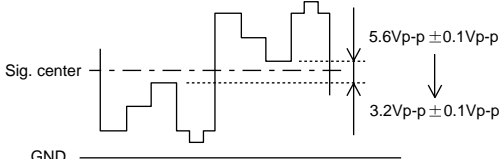
**9. VF brightness adjustment**

Test point	TL8841(VG)	Address	VCR ADJ E0
Mode	VCR AV input		
Procedure	1) Input the signal of a 3-step waveform. 2) Set VCR ADJ ED to 00. 3) Adjust the waveform pedestal range of TL8841 to the specified adjustment value. 4) Return VCR ADJ ED to the initial value. (Initial value: 7A)		
Adjustment rating	$7.4\text{Vp-p} \pm 0.1\text{Vp-p}$ 		
Examples	• During IC705 or IC8800 replacement.		

**10. VF contrast adjustment**

Test point	TL8841(VG)	Address	VCR ADJ E5
Mode	VCR AV input		
Procedure	1) Input the signal of a 3-step waveform. 2) Set VCR ADJ EB/ED to FF/00. 3) Adjust the pedestal 100% range of the waveform of TL8841 to the specified adjustment value. 4) Return VCR ADJ ED to the initial value. (Initial value: 7A)		
Adjustment rating	$2.0V_{p-p} \pm 0.1V_{p-p}$ 		
Examples	• During IC705 or IC8800 replacement.		

**11. VF<sub>γ</sub> adjustment**

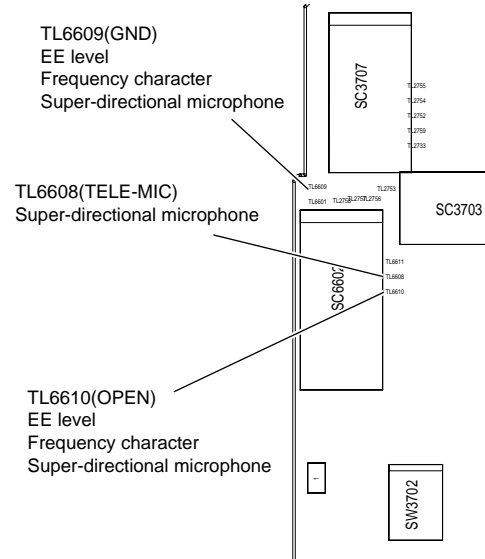
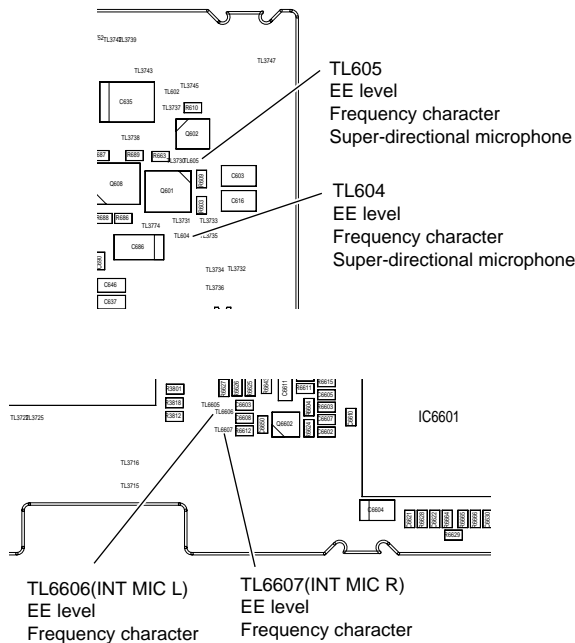
Test point	TL8841(VG)	Address	VCR ADJ EB
Mode	VCR AV input		
Procedure	1) Input the signal of a 3-step waveform. 2) Set VCR ADJ ED to 00. 3) Adjust the white 100% range of the waveform of TL8841 to $5.6 \pm 0.1V_{p-p}$ with VCR ADJ EB. 4) Then adjust the same waveform VCR ADJ E5 to $3.2 \pm 0.1V_{p-p}$ . 5) Return VCR ADJ ED to the initial value. (Initial value: 7A)		
Adjustment rating	$5.6 \pm 0.1V_{p-p}$ (VCR ADJ EB) $3.2 \pm 0.1V_{p-p}$ (VCR ADJ E5) 		
Examples	• During IC705 or IC8800 replacement.		

**12. VF sub-brightness R/B adjustment**

Test point	TL8842(VR), TL8841(VG), TL8843(VB)	Address	VCR ADJ E9(R), VCR ADJ EA(B)
Mode	VCR AV input		
Procedure	1) Input white 40% signal into the AV input and standard monitor. 2) Adjust it with the VCR ADJ E9/EA so as to obtain the same color as the standard monitor.		
Adjustment rating	Standard monitor		
Examples	• During IC705 or IC8800 replacement.		

# ADJUSTING THE MIC AMP CIRCUIT

(Wiring board diagram: Sub Side A)



(Wiring board diagram: Sub Side B)

## 1. EE level check

Measuring instrument	Valve voltmeter	Test point	TL605, TL604
Mode	P-ON (CAM), Zoom MIC "OFF", Timbre mode "NORMAL", Wind sound decrease "OFF"	Adjustment rating	-9dBs $\pm$ 3dB
Test signal	1kHz -54dBs sine wave		
Procedure	1) Input 1kHz, -54dBs sine wave into TL6606(INT MIC L) and TL6607(INT MIC R). 2) Make sure that the signal level of TL605 Audio-L out and TL604 Audio-R out is within the standard limits.		
Remark	TL6610: OPEN, TL6609: GND		

## 2. Frequency character check

Measuring instrument	Valve voltmeter	Test point	TL605, TL604
Mode	P-ON (CAM) Parameter: Zoom MIC "OFF", Timbre mode "NORMAL", Wind sound decrease "OFF"	Adjustment rating	(1kHz standard) 100Hz: -11dBs $\pm$ 3dB 10kHz: 0B $\pm$ 3dB
Test signal	100Hz, 10kHz -54dBs sine wave		
Procedure	1) Input 100Hz, -54dBs sine wave and then 10kHz, -54dBs sine wave into TL6606(INT MIC L) and TL6607(INT MIC R). 2) At this time make sure that the signal level of TL605 Audio-L out and TL604 Audio-R out is within the standard limits (1kHz standard).		
Remark	TL6610: OPEN, TL6609: GND		

## 3. Super-directional microphone check

Measuring instrument	Valve voltmeter	Test point	TL605, TL604
Mode	P-ON (CAM), Zoom MIC "TELE", Timbre mode "NORMAL", Wind sound decrease "OFF"	Adjustment rating	-10dBs $\pm$ 3dB
Test signal	1kHz -54dBs sine wave		
Procedure	1) Input 1kHz, -54dBs sine wave into TL6608(TELE-MIC). 2) Make sure that the signal level of TL605 Audio-L out and TL604 Audio-R out is within the standard limits.		
Remark	TL6610: OPEN, TL6609: GND		

DV INTERFACE (IEEE1394) ID SETTING

This unit has a DV interface function conforming to IEEE1394. Therefore, each individual ID number must be used for each unit. Since this ID is written on the E<sup>2</sup>PROM (IC302) on the head amp PWB, the ID must be newly written when replacing this IC or the head amp PWB.

Address	180, 17F, 17E	Mode	VCR								
Adjustmentrating	ID number obtained from the URL below										
Procedure	<div>1) Refer to the ID code application below.</div> <div>2) Set the data obtained in step (1) to the corresponding addresses in the VCR adjustment mode.</div> <div>* (Example) The data "08001F 0100 123456" is obtained.</div> <div>(1) Enter the unit in the VCR ADJ mode.</div> <div>(2) Set the ID numbers as follows.</div> <div><table><tr><td>Address</td><td>180</td><td>17F</td><td>17E</td></tr><tr><td>Data</td><td>12</td><td>34</td><td>56</td></tr></table></div>			Address	180	17F	17E	Data	12	34	56
Address	180	17F	17E								
Data	12	34	56								
Examples	• During E <sup>2</sup> PROM (IC302: on the H/A unit) replacement. • During the H/A unit (RAMP-0035TAN0) replacement.										

■ ID code is acquired

1. Connect with the EUI48/64 ID code control system.
- (1) Start the Internet Explorer or Netscape Navigator.
- (2) Access the following address.
- (URL:http://www.rcg.kami.sharp.co.jp/quics/e\_index.html)
- Select the "EUI48/64 ID code control system" from the "Service" item.
- Note:** If you want to establish a connection by directly inputting the URL, please input the following.
- URL:http://www1.rcg.kami.sharp.co.jp:7000/adrs\_agt/adrs\_dba/ide00010.main
- The login screen will appear.

EUI 48 / 64 ID code control system

Please enter user ID and password

User ID

Password

Login

Usage precautions

1. Those who have acquired ID numbers must manage the acquired ID codes on their own responsibility.

Their names and departments or section to which they belong are stored as history data in the memory.

2. JavaScript is used for display selection handing.

Therefore, the system may not operate properly on some browsers.

To operate the system, use any of the following browsers.

Internet Explorer 4.01SP1 or higher versions/Netscape Navigator 4.04 or higher versions

3. Do not click the back button displayed on the above browser screen.

If you click it, the system may not operate properly.

4. If the search results are displayed at a personal computer terminal with the Japanese fonts not installed,

the Japanese characters are not displayed correctly.

If you have any question, please contact to below

Reliability Control Group

E-mail : eui@cmn.hirano.sharp.co.jp

Home

- (3) For the [User ID], input the [Password].
- Click on [Login].

EUI 48 / 64 ID code control system

Please enter user ID and password

User ID 000000

Password \*\*\*\*

Login

Usage precautions

1. Those who have acquired ID numbers must manage the acquired ID codes on their own responsibility.

Their names and departments or section to which they belong are stored as history data in the memory.

2. JavaScript is used for display selection handing.

Therefore, the system may not operate properly on some browsers.

To operate the system, use any of the following browsers.

Internet Explorer 4.01SP1 or higher versions/Netscape Navigator 4.04 or higher versions

3. Do not click the back button displayed on the above browser screen.

If you click it, the system may not operate properly.

4. If the search results are displayed at a personal computer terminal with the Japanese fonts not installed,

the Japanese characters are not displayed correctly.

If you have any question, please contact to below

Reliability Control Group

E-mail : eui@cmn.hirano.sharp.co.jp

Home

- (4) Click on [EUI 64 (IEEE 1394)] from the [1. Application for acquisition of ID].

EUI 48 / 64 ID code control system

Click the button.

1.Application for acquisition of ID

EUI 48

EUI 64 (IEEE1394)

EUI 64 (IrDA)

2.Inquiry/search

EUI 48

EUI 64

Click

Home



(5) Click on [Repair use].

Click

EUI 64 (IEEE1394) Application for acquisition of ID	
Click the button.	
<input type="button" value="Trial production use"/>	<input type="button" value="Repair use"/>
<input type="button" value="Back to menu"/>	

- (6) Input the necessary information for the application.  
 For the indispensable input items, be sure to input them.  
 Select the [Group/company] and [Kind name] from the list.  
 Input the [Model name].  
 Input the [Serial number].  
 Input the [Site/department of repair].

EUI 64 (IEEE1394) Application for acquisition of ID / Repair use		
Input the following items.		
Input date	00-FEB-01	
User ID code	000000	
Name		Input of half-sized characters.
Group/company	Audio-Visual Systems Group	Select from the list.
Kind name	ViewCam with LCD	Select from the list.
Model name		Input of half-sized characters. Compulsory input items. Do not input "-" (hyphen).
Serial number		Input of half-sized characters. Compulsory input items.
Site/department of repair		Input of half-sized characters. Compulsory input items.
<input type="button" value="motion"/> <input type="button" value="back to select menu"/> <input type="button" value="Back to menu"/>		

- (7) Click on [motion].  
 The confirmation screen will appear.

EUI 64 (IEEE1394) Application for acquisition of ID / Repair use		
Input the following items.		
Input date	00-FEB-01	
User ID code	000000	
Name	TaroYamada	Input of half-sized characters.
Group/company	Audio-Visual Systems Group	Select from the list.
Kind name	ViewCam with LCD	Select from the list.
Model name	VL-AX1U	Input of half-sized characters. Compulsory input items. Do not input "-" (hyphen).
Serial number	1111112	Input of half-sized characters. Compulsory input items.
Site/department of repair	SHARP	Input of half-sized characters. Compulsory input items.
<input type="button" value="motion"/> <input type="button" value="back to select menu"/> <input type="button" value="Back to menu"/>		

(8) Click on [Yes].

2. Print the application result.

- (1) Print out the application result screen.  
 Control the application result as evidence.  
 To print it, select "Print (P)" from the "File (F)" in the menu bar or click on the print button in the tool bar.  
 (2) Click on [Menu] to complete the application.  
 If you create applications in succession, repeat steps (1)~(8).  
 To complete it, click on [End] in the menu screen.

EUI 64 (IEEE1394) Application for acquisition of ID/Repair use	
Input date	00-FEB-01
User ID code	000000
Name	TaroYamada
Group/company	Audio-Visual Systems Group
Kind name	ViewCam with LCD
Model name	VL-AX1U
Serial number	1111112
The site/department of repair	SHARP
EUI 64 (IEEE1394) Application for acquisition of ID/Repair use You will acquire an ID code based on the above information. Are you sure? <input type="button" value="Yes"/> <input type="button" value="No"/>	

## MODEL ID SETTING

Address	VCR ADJ FD, FE, FF	Mode	VCR								
Adjustment rating	The following table reference. VL-AX1U (102022)										
Procedure	1) Set the unit to the VCR ADJ mode. 2) <table border="1"> <thead> <tr> <th>Address</th><th>FD</th><th>FE</th><th>FF</th></tr> </thead> <tbody> <tr> <td>Data</td><td>10</td><td>20</td><td>22</td></tr> </tbody> </table>			Address	FD	FE	FF	Data	10	20	22
Address	FD	FE	FF								
Data	10	20	22								
Examples	• During E <sup>2</sup> PROM (IC705) replacement.										

## 10-2. Camera Section Adjustments

### 10-2-1. Camera section service

(1) Camera adjustment is performed after the set has been completed.

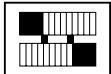


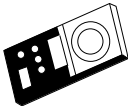
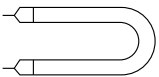
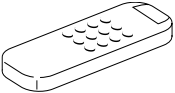
(2) Subjects, measuring instruments and jigs needed for camera section service and adjustments

<ul style="list-style-type: none"> <li>Gray scale chart</li> <li>Color bar chart</li> <li>Oscilloscope</li> <li>Digital voltmeter</li> <li>Halogen lamp: 2 pcs.</li> <li>Vector scope</li> </ul>	<ul style="list-style-type: none"> <li>Frequency counter</li> <li>Illumination meter</li> <li>Color temperature meter</li> <li>Color temperature conversion filter</li> <li>HOYA "LB-165"</li> <li>Color video monitor</li> </ul>	<ul style="list-style-type: none"> <li>Video output cable</li> <li>AC adapter</li> <li>Extension cables</li> <li>Remote control unit for servicing</li> </ul>
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### 10-2-2. List of camera jigs and tools

Configuration

<Note: The entries of list> 1. Name 2. Part No. 3. Code

 <p>1. Gray scale chart (390 x 520 mm) 2. JiGCHART-1 3. CP</p>	 <p>1. Color bar chart (240 x 320 mm) 2. JiGCHART-4 3. DA</p>	 <p>1. Illumination meter (0 to 3000 lux) 2. JiGMETER-1 3. CT</p>	 <p>1. Color temperature meter (1600 to 40000 degrees K) 2. JiGMETER-2 3. EL</p>
<p>1. Color temperature conversion filter (3200 degrees K ⇒ 6800 degrees K) 2. JiGHOYA-LB165 3. BN</p>	 <p>1. PC plate connector drawer 2. JiGTH-SS10 3. AW</p>	 <p>1. Remote control unit for servicing 2. RRMCG0033TASA 3. BT</p>	

### 10-2-3. Adjusting the camera unit

(1) Preparations for adjustments and items to be checked

- Set up the light box so that the entire pattern is evenly lit. Set the color temperature to 3200°K.
- Use test patterns that are not dirty nor discoloured.
- If the electrical circuitry gets in trouble, be sure to pinpoint the trouble spot with a measuring instrument and repair or replace the defective part.

(2) Remote control for servicing RRMCG0033TASA

To adjust the camera section of this machine, the remote control for servicing (RRMCG0033TASA) is used. The adjustment is made in such a manner that the remote control writes necessary data by way of the microprocessor to the specific addresses on the E<sup>2</sup>PROM (IC502).

1) To adjust the camera:

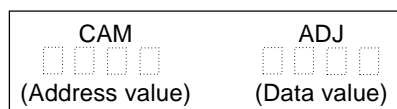
Press the "CONTINUE" key first and then the "CAM ADJ" key.

This will show



on the LCD screen, thereby having the camera unit ready for the adjustments.

2) Descriptions of the displays



(Indicates the camera adjustment mode.)

\* The address values for this machine range from 0000 to 09FF.

\* The data include byte data (the last two digits are effective) and 2-byte data (the last three digits are effective).

3) Descriptions of the remote control keys

"FF" key: Increases the address and data values.

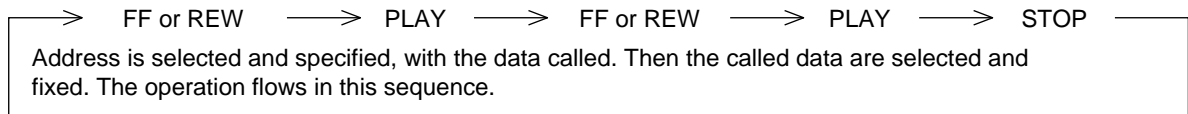
"REW" key: Decreases the address and data values.

"PLAY" key: Specifies addresses and calls the data.

This key also fixes the data values.

"STOP" key: Clears the data to enable the selection of address.

## 4) Operation flow



## 5) When the adjustment is complete:

Press the "CONTINUE" key to let the "CAM ADJ" display disappear from the screen.

**Note:** Before terminating the adjustments, make sure that the adjustment mode is neither the auto-focus function adjustment mode nor the camera signal system adjustment mode (these modes are mentioned later).

- Camera unit adjustment modes

The camera unit is adjusted in two types of modes: the auto-focus function adjustment mode and the camera signal system adjustment mode.

**Note:** E<sup>2</sup>PROM contains the adjustment item data as shown below. If it is changed, data rewriting and confirmation of latest data must be performed.

- 1) E<sup>2</sup>PROM on Camera Head Section

Lens Data

- 2) E<sup>2</sup>PROM(IC502) on main unit

Signal system adjustment data

## (3) Auto-focus function adjustment mode

- The camera unit uses a microprocessor-controlled auto-focus zoom lens.

The auto-focus circuit incorporated in this unit is designed to execute the image processing where the focusing action is done by taking advantage of the fact that the high-frequency components in the image signals increase as the focus intensifies. Moreover, to achieve high magnifying power with a small lens, the camera unit incorporates the inner focus system in which the focus is shifted by moving the master lens (rear lens) back and forth. This inner focus system is a full-range focus type by which the focus can be shifted from approximately 10 mm to the infinity. It should be noted, however, that since the closest subject distance at the telephoto end is fixed at 1.5 m, subjects in a closer range than 1.5 m at the telephoto end will be out of focus. For this reason, the unit is designed so the zoom control is automatically shifted to the wide angle side until the position is found where the subject can be focused on.

In the auto-focusing system of this unit, the following constitute the important factors:

- Master lens position detection data
- Iris position detection data
- Zoom lens position detection data

These detection data are handled and stored by the microprocessor, lens by lens, into the E<sup>2</sup>PROM.

Therefore, in the following cases, the auto-focus function adjustment is required:

- When the lens has been replaced
- When the CCD has been replaced
- When the E<sup>2</sup>PROM has been replaced

- 1) Shifting to the auto-focus function adjustment mode

Set the data for the address "0000" to "□□ 01".



This makes the screen fade temporarily in white and shifts to the auto-focus function adjustment mode.

\* When this adjustment mode has been shifted to, make the adjustment according to (5) Camera unit adjustment procedure.

\* In this adjustment mode, the lens can not be operated.

- 2) Shifting to the normal operation mode

Set the data for the address "0000" to "□□ FF".



This makes the screen fade temporarily in white and shifts to the normal operation mode.



Press the "CONTINUE" key, and the "CAM ADJ" display goes out of the screen, enabling the normal operation.

## (4) Camera signal system adjustment mode

In the camera signal system adjustment mode, the automatic white balance is disabled to allow for the adjustment of the camera unit. At this time, the white balance mode is fixed at the INDOORS mode and the focus mode is switched to the manual focus mode.

## 1) Shifting to the camera signal system adjustment mode

Set the data for the address "0000" to "□□00".



This shifts the camera signal system adjustment mode.

\* When this adjustment mode has been shifted to, make the adjustment according to (5) Camera unit adjustment procedure.

## 2) Shifting to the normal operation mode

Set the data for the address "0000" to "□□FF".

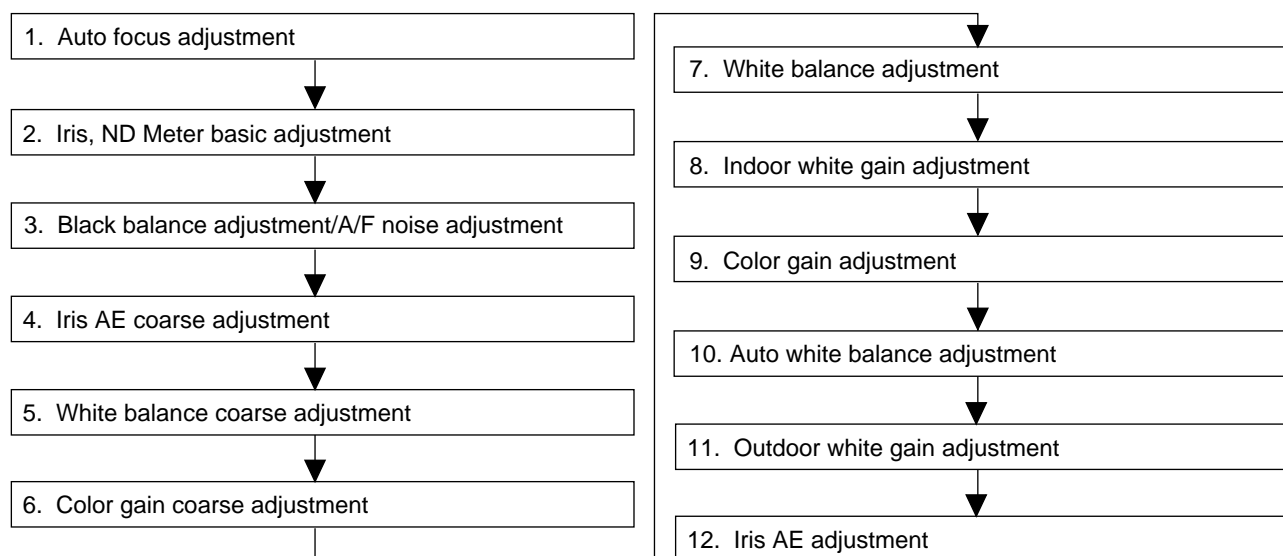


This shifts the mode to the normal operation mode.



Press the "CONTINUE" key, and the "CAM ADJ" display goes out of the screen, enabling the normal operation.

## (5) Camera unit adjustment procedure



\* The above 1. Auto-focus function adjustment in the auto-focus function adjustment mode, whereas the other adjustments are made in the camera signal system adjustment mode.

## (6) Replacement procedure of gyro unit

1) When replacing E<sup>2</sup>PROM on lens unit of camera head with the gyro unit not replaced

Since the adjustment data of gyro is written in E<sup>2</sup>PROM, copy the data of addresses "0864, 0865, 0866, 0867" and rewrite them after replacement.

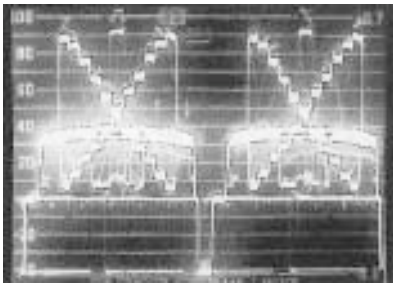


## 2) When replacing the gyro sensor: RMC1001, RMC1002




After replacing with the specified gyro sensor, write the following data in the addresses "0864, 0865, 0866, 0867".

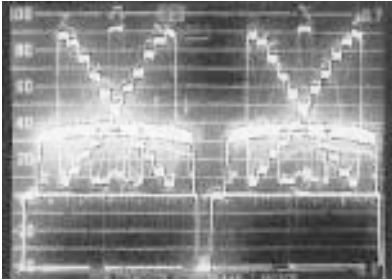
Ref No.	Part code	Address	Data
RMC1002	Replacement with RSNSG0004CEZZ	0864	02
		0865	30
RMC1001	Replacement with RSNSG0013CEZZ	0866	04
		0867	00

## 10-2-4. Adjustment procedures

Item	Adjustment method													
(1) Auto-focus adjustment														
Set the unit to the auto-focus function adjustment mode and write data to the address "0001" one after another. This executed the adjustments automatically. The items to be adjusted are as listed below. Every time an adjustment is made properly, the data "00FF" is written to the address. After each adjustment, make sure that the adjustment has been made properly, and then go on to the next adjustment item.														
<table><tr><th>Address</th><th>Data</th><th>Adjustment item</th></tr><tr><td rowspan="4">0001</td><td>0012</td><td>WIDE end adjustment</td></tr><tr><td>0006</td><td>WIDE end focus ∞ position adjustment</td></tr><tr><td>0008</td><td>TELE end focus ∞ position adjustment</td></tr><tr><td>000D</td><td>Zoom tracking adjustment</td></tr></table>			Address	Data	Adjustment item	0001	0012	WIDE end adjustment	0006	WIDE end focus ∞ position adjustment	0008	TELE end focus ∞ position adjustment	000D	Zoom tracking adjustment
Address	Data	Adjustment item												
0001	0012	WIDE end adjustment												
	0006	WIDE end focus ∞ position adjustment												
	0008	TELE end focus ∞ position adjustment												
	000D	Zoom tracking adjustment												
<p>Note 1: To adjustment of ∞ position is executed by actually picking up the image of subject. For this adjustment use the subject with clear profile.</p> <p>Especially, if the adjustment of TELE end focus ∞ position is made without picking up the image of remote subject, adjustment failure may occur.</p> <p>Adjustment of WIDE end focus ∞ position: 3 m or more</p> <p>Adjustment of TELE end focus ∞ position: 50 m or more</p>														
<p>Note 2: In case of ∞ position adjustment the field depth is important to ensure the adjustment accuracy. If the field depth is high, the focus becomes too stable , which may cause incorrect adjustment of ∞ position. Therefore the adjustment must be made with low field depth (with iris opened).</p>														
<p>The iris can be opened with the high-speed shutter.</p> <ol style="list-style-type: none"><li>1. It returns to the normal operation mode.</li><li>2. In the normal operation mode, set the high-speed shutter mode until the iris is opened. (Refer to the operation manual.)</li><li>3. Display “CAM ADJ” with the remote control for service.</li><li>4. It shifts to the auto-focus adjustment mode.</li><li>5. Perform the ∞ position adjustment.</li><li>6. After completing the ∞ position adjustment, return the high-speed shutter mode to the normal mode.</li></ol>														
<p>In the camera signal system adjustment mode (write the data "□□00" to the address "0000"), set the unit to the adjustment mode.</p>														
(2) Iris/ND Meter basic adjustment														
This is for adjusting the operating point of the hole element installed in the iris meter of the lens.														
The adjustment is automatically done by sequentially writing the data at the address "0001" in the camera signal system adjustment mode.The items to be adjusted are as listed below. Every time an adjustment is made properly, the data "00FF" is written to the address.														
<table><tr><th>Address</th><th>Data</th><th>Adjustment item</th></tr><tr><td rowspan="3">0001</td><td>0009</td><td>Hall offset adjustment</td></tr><tr><td>000A</td><td>Iris offset adjustment</td></tr><tr><td>000B</td><td>Iris close adjustment</td></tr></table>			Address	Data	Adjustment item	0001	0009	Hall offset adjustment	000A	Iris offset adjustment	000B	Iris close adjustment		
Address	Data	Adjustment item												
0001	0009	Hall offset adjustment												
	000A	Iris offset adjustment												
	000B	Iris close adjustment												
(3) Black balance adjustment/A/F noise adjustment														
1) Prior to the adjustment, initialize the data for the addresses "0500", "0502", "0504", "0506", "0508", "050A".														
Write "FF FF" to all of these address.														
2) Write the data "□□01" to the address "0001" This starts the adjustment automatically.														
When the adjustment is completed properly, the data "00FF" is written automatically.														

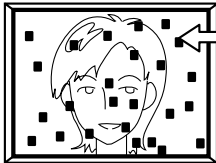
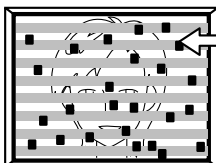
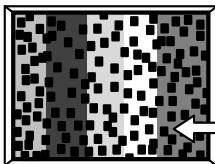
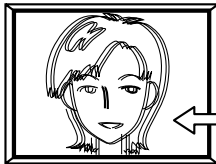
Item	Adjustment method																					
<p>(4) Iris AE coarse adjustment</p> <ul style="list-style-type: none"><li>Measurement terminal: S terminal luminance signal output (75 Ω termination)</li><li>Address: "0002" AE_CVT</li><li>Measuring instrument: Oscilloscope (horizontal sync)</li><li>Object: Grey scale</li><li>Data variation width: "0000" to "00FE"</li></ul>	<p>(1) Video output is observed with the oscilloscope in the grey scale standard record state, the data of address "0002" is rewritten, and the luminance signal level is adjusted white to <math>760 \pm 10\text{mVp-p}</math>, gray of the background <math>420 \pm 10\text{mVp-p}</math>.</p> <div><p>100mV/div</p></div>																					
<p>(5) White balance coarse adjustment</p> <ul style="list-style-type: none"><li>Measurement terminal: EE output</li><li>Address: "0128" CGAIN_KR_W "012A" CGAIN_KB_W</li><li>Measuring instrument: Vector scope</li><li>Object: Grey scale</li><li>Data variation width: "0000" to "03FF"</li></ul>	<p>(1) Indication on the vector scope is observed in the grey scale standard record state, data of address "0128" and "012A" are rewritten, and an adjustment is made so that the luminous dot is located in the position of burst ratio: R-Y <math>0 \pm 5\%</math> B-Y <math>0 \pm 5\%</math></p> <div></div>																					
<p>(6) Color gain coarse adjustment</p> <ul style="list-style-type: none"><li>Measurement terminal: EE output</li><li>Address: "013A" CGIN_RYG "013C" CGIN_BYG "0138" CMAT_RYG "0136" CMAT_BYG "07DE" Yellow amplitude "07DD" Yellow phase</li><li>Measuring instrument: Vector scope</li><li>Object: Color bar chart</li><li>Data variation width: "0000" to "00FF"</li></ul>	<p>(1) The color bar chart is imaged, and the picture angle is adjusted so as to get white level 700 mV. Indication on the vector scope is observed, the data of address "013A", "013C", "0138", "0136", "07DE" and "07DD" are rewritten, and setting is made so that the red, blue and yellow luminous dots are located in the following positions. (The gain of vector scope must be set on 75% amplitude point on the B-Y axis.)</p> <div></div> <table><tr><th></th><th></th><th>Adjustment address</th></tr><tr><td>Red amplitude</td><td><math>1.85 \pm 0.1</math> time (burst ratio)</td><td>: "013A"</td></tr><tr><td>Blue amplitude</td><td><math>1.50 \pm 0.1</math> time (burst ratio)</td><td>: "013C"</td></tr><tr><td>Yellow amplitude</td><td><math>1.35 \pm 0.1</math> time (burst ratio)</td><td>: "07DE"</td></tr><tr><td>Red phase</td><td><math>103^\circ \pm 2^\circ</math></td><td>: "0138"</td></tr><tr><td>Blue phase</td><td><math>358^\circ \pm 2^\circ</math></td><td>: "0136"</td></tr><tr><td>Yellow phase</td><td><math>164^\circ \pm 2^\circ</math></td><td>: "07DD"</td></tr></table>			Adjustment address	Red amplitude	$1.85 \pm 0.1$ time (burst ratio)	: "013A"	Blue amplitude	$1.50 \pm 0.1$ time (burst ratio)	: "013C"	Yellow amplitude	$1.35 \pm 0.1$ time (burst ratio)	: "07DE"	Red phase	$103^\circ \pm 2^\circ$	: "0138"	Blue phase	$358^\circ \pm 2^\circ$	: "0136"	Yellow phase	$164^\circ \pm 2^\circ$	: "07DD"
		Adjustment address																				
Red amplitude	$1.85 \pm 0.1$ time (burst ratio)	: "013A"																				
Blue amplitude	$1.50 \pm 0.1$ time (burst ratio)	: "013C"																				
Yellow amplitude	$1.35 \pm 0.1$ time (burst ratio)	: "07DE"																				
Red phase	$103^\circ \pm 2^\circ$	: "0138"																				
Blue phase	$358^\circ \pm 2^\circ$	: "0136"																				
Yellow phase	$164^\circ \pm 2^\circ$	: "07DD"																				

Item	Adjustment method																					
<p>(7) White balance adjustment</p> <ul style="list-style-type: none"><li>Measurement terminal: EE output</li><li>Address: "0128" INDOOR_W/B R "012A" INDOOR_W/B R</li><li>Measuring instrument: Vector scope</li><li>Object: Grey scale</li><li>Data variation width: "0000" to "03FF"</li></ul>	<p>(1) White balance adjustment is performed repeatedly.</p> <div></div>																					
<p>(8) Indoor white gain adjustment</p> <ul style="list-style-type: none"><li>Measurement terminal:—</li><li>Address: 0001</li><li>Measuring instrument:—</li><li>Object: White pattern</li><li>Data variation width:—</li></ul>	<p>(1)The adjustment is automatically done by writing the data "05" at the address "001" in the signal system adjustment mode. When the adjustment is normally completed, the data "FF" will be return to the address "001". If another data except "FF" is returned, it will be judged as the poor adjustment.</p>																					
<p>(9) Color gain adjustment</p> <ul style="list-style-type: none"><li>Measurement terminal: EE output</li><li>Address: "013A" CGIN RYG "013C" CGIN BYG "0138" CMAT RYG "0136" CMAT BYG "07DE" Yellow amplitude "07DD" Yellow phase</li><li>Measuring instrument: Vector scope</li><li>Object: Waveform monitor color bar chart</li><li>Data variation width: "0000" to "00FF"</li></ul>	<p>(1) Color gain adjustment is performed repeatedly.</p> <div><table><tr><td></td><td></td><td>Adjustment address</td></tr><tr><td>Red amplitude</td><td><math>1.85 \pm 0.05</math> time (burst ratio)</td><td>: "013A"</td></tr><tr><td>Blue amplitude</td><td><math>1.50 \pm 0.05</math> time (burst ratio)</td><td>: "013C"</td></tr><tr><td>Yellow amplitude</td><td><math>1.35 \pm 0.05</math> time (burst ratio)</td><td>: "07DE"</td></tr><tr><td>Red phase</td><td><math>103^{\circ} \pm 1^{\circ}</math></td><td>: "0138"</td></tr><tr><td>Blue phase</td><td><math>358^{\circ} \pm 2^{\circ}</math></td><td>: "0136"</td></tr><tr><td>Yellow phase</td><td><math>164^{\circ} \pm 2^{\circ}</math></td><td>: "07DD"</td></tr></table></div>			Adjustment address	Red amplitude	$1.85 \pm 0.05$ time (burst ratio)	: "013A"	Blue amplitude	$1.50 \pm 0.05$ time (burst ratio)	: "013C"	Yellow amplitude	$1.35 \pm 0.05$ time (burst ratio)	: "07DE"	Red phase	$103^{\circ} \pm 1^{\circ}$	: "0138"	Blue phase	$358^{\circ} \pm 2^{\circ}$	: "0136"	Yellow phase	$164^{\circ} \pm 2^{\circ}$	: "07DD"
		Adjustment address																				
Red amplitude	$1.85 \pm 0.05$ time (burst ratio)	: "013A"																				
Blue amplitude	$1.50 \pm 0.05$ time (burst ratio)	: "013C"																				
Yellow amplitude	$1.35 \pm 0.05$ time (burst ratio)	: "07DE"																				
Red phase	$103^{\circ} \pm 1^{\circ}$	: "0138"																				
Blue phase	$358^{\circ} \pm 2^{\circ}$	: "0136"																				
Yellow phase	$164^{\circ} \pm 2^{\circ}$	: "07DD"																				
<p>(10) Auto white balance adjustment</p> <ul style="list-style-type: none"><li>Measurement terminal: EE output</li><li>Address: "000C" OUTDOOR R "000E" OURDOOR B</li><li>Measuring instrument: Vector scope</li><li>Object: Grey scale</li><li>Data variation width: "0000" to "03FF"</li></ul>	<p>(1) The color temperature conversion filter (LB165) is mounted in front of lens. (2) Indication of vector scope is observed in the grey scale standard record state, and an adjustment is made so that the luminous dots are located in the following positions:</p> <div><table><tr><td>R-Y</td><td><math>0 \pm 5\%</math> (burst ratio)</td></tr><tr><td>B-Y</td><td><math>0 \pm 5\%</math> (burst ratio)</td></tr></table></div> <div></div>	R-Y	$0 \pm 5\%$ (burst ratio)	B-Y	$0 \pm 5\%$ (burst ratio)																	
R-Y	$0 \pm 5\%$ (burst ratio)																					
B-Y	$0 \pm 5\%$ (burst ratio)																					
<p>(11) Outdoor white gain adjustment</p> <ul style="list-style-type: none"><li>Measurement terminal:—</li><li>Address: 0001</li><li>Measuring instrument:—</li><li>Object: White pattern</li><li>Data variation width:—</li></ul>	<p>(1) Attach the color temperature conversion filter (LB165) in front of the lens. (2) The adjustment is automatically done by writing the data "06" at the address "001" in the signal system adjustment mode. When the adjustment is normally completed, the data "FF" will be return to the address "001". If another data except "FF" is returned, it will be judged as the poor adjustment.</p>																					

Item	Adjustment method
<div>(12) Iris AE adjustment<ul style="list-style-type: none"><li>Measurement terminal: S terminal luminance signal output (75 Ω termination)</li><li>Address: "0002" AE_CVT</li><li>Measuring instrument: Oscilloscope (horizontal sync)</li><li>Object: Grey scale</li><li>Data variation width: "0000" to "00FE"</li></ul></div>	<div><div><div>(1) Set the unit to the normal operation mode (write the data "FF" to the address "0000").</div><div>(2) Video output is observed with the oscilloscope in the grey scale standard record state, the data of address "0002" is rewritten, and the luminance signal level is adjusted white to <math>760 \pm 10\text{mVp-p}</math>, gray of the background <math>420 \pm 10\text{mVp-p}</math>.</div></div><div></div><div>100mV/div</div></div>

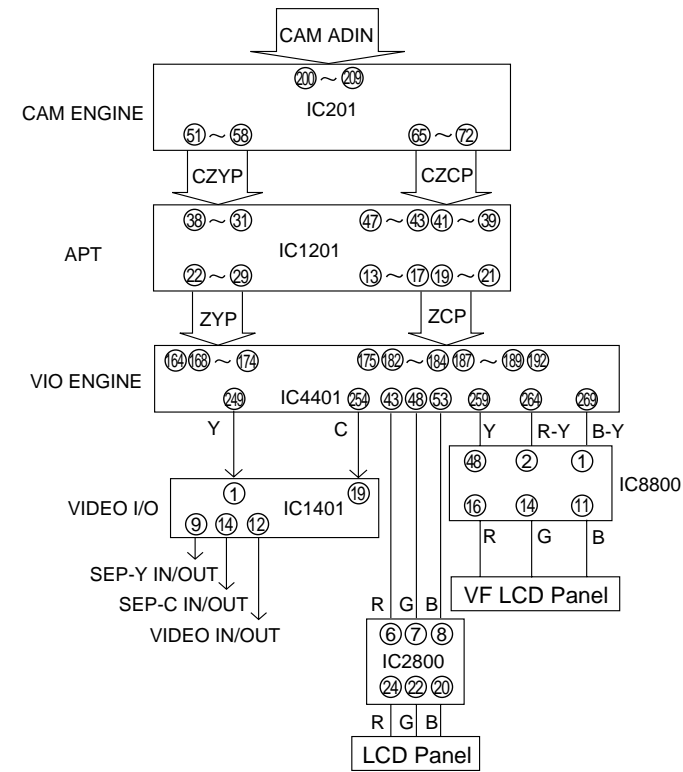


# 11. USEFUL TIPS (PROBLEMS DIFFER FROM THOSE FOUND ON VHS OR 8MM DECKS BECAUSE THE SIGNALS ARE DIGITALLY PROCESSED.)

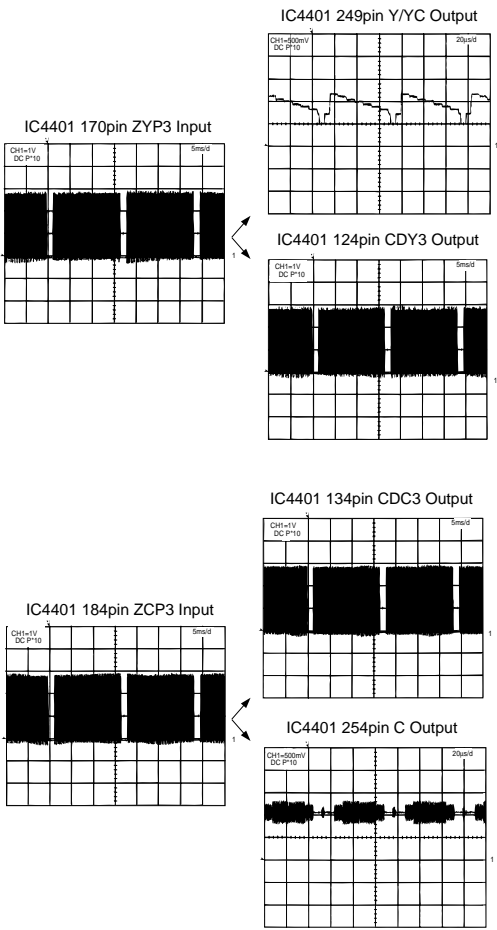
<p>Camera (EE mode)</p> <div><p>Picture fails to appear</p></div> <p><b>Major circuits to be checked</b></p> <ul style="list-style-type: none"><li>• CCD</li><li>• Camera circuits (CDS, ADC, CAM ENGINE)</li><li>• MEC/SYS MiCON (IC704)</li><li>• VIDEO I/O (IC1401)</li><li>• VIO ENGINE (IC4401)</li></ul>	<p>VCR (EE mode)</p> <div><p>Blueback fails to appear.</p></div> <p><b>Major circuits to be checked</b></p> <ul style="list-style-type: none"><li>• MEC/SYS MiCON (IC704)</li><li>• CAM ENGINE (IC201)</li><li>• REC/PB ENGINE (IC452)</li></ul>	<p>Camera (REC mode) VCR (PB mode)</p> <div><p>Picture fails to appear when tape recorded on this unit or another unit is played back. (EE OK)</p></div> <p><b>Major circuits to be checked</b></p> <ul style="list-style-type: none"><li>• CAM ENGINE (IC201)</li><li>• REC/PB ENGINE (IC452)</li></ul>
<p>Camera (REC mode) VCR (PB mode)</p> <div><p>Blueback when tape recorded on this unit or another unit is played back. (EE OK)</p></div> <p><b>Major circuits to be checked</b></p> <ul style="list-style-type: none"><li>• EQ/PLL (IC3401)</li><li>• Head amplifier (IC301)</li><li>* Dirty or defective video head</li></ul>	<p>Camera (REC mode) VCR (PB mode)</p> <div><div><p>Random block noise when tape recorded on this unit or another unit is played back.</p></div><p>or</p><div><p>Noise bar (Green) + random block noise when tape recorded on this unit or another unit is played back.</p></div></div> <p><b>Major circuits to be checked</b></p> <ul style="list-style-type: none"><li>• EQ/PLL (IC3401)</li><li>• Head amplifier (IC301)</li><li>* Dirty or defective video head</li></ul>	
<p>VCR (PB mode) + color bar</p> <div><p>Lines appear on the color bar.</p></div> <p><b>Major circuits to be checked</b></p> <ul style="list-style-type: none"><li>• CAM ENGINE (IC201)</li></ul>	<p>VCR (PB mode) + color bar</p> <div><div><p>There is considerable random block noise.</p></div></div> <p><b>Major circuits to be checked</b></p> <ul style="list-style-type: none"><li>• Adjustment of the electromagnetic conversion circuit system.</li></ul>	<p>Camera (EE mode)</p> <div><div><p>The outline looks like a Moire pattern.</p></div></div> <p><b>Major circuits to be checked</b></p> <ul style="list-style-type: none"><li>• Y data between CAM ENGINE (IC201) and VIO ENGINE (IC4401) is missing.</li></ul>

12. SIGNAL FLOW DIAGRAMS

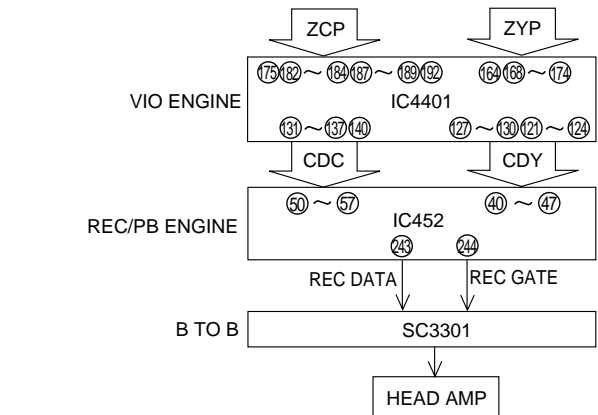
12-1. EE MODE FLOW (VIDEO)



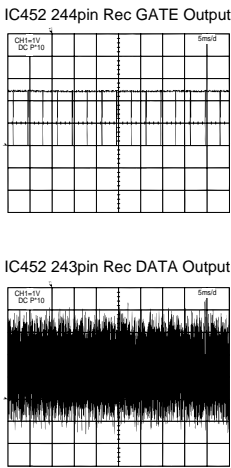
WAVEFORM DIAGRAM  
(DURING COLOR BAR RECORDING)



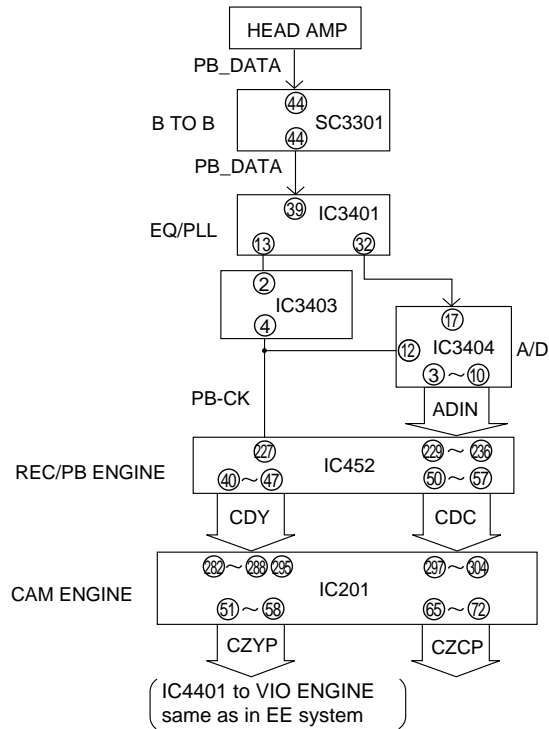
12-2. FLOW IN REC MODE (VIDEO)



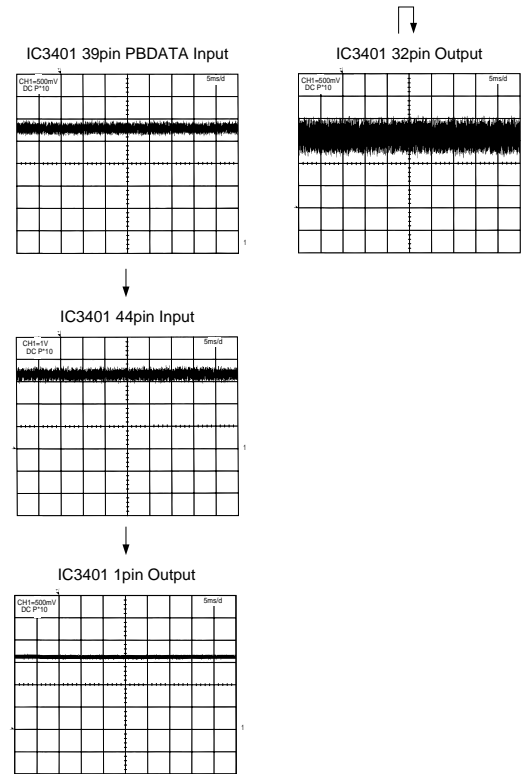
WAVEFORM DIAGRAM  
(DURING COLOR BAR RECORDING)



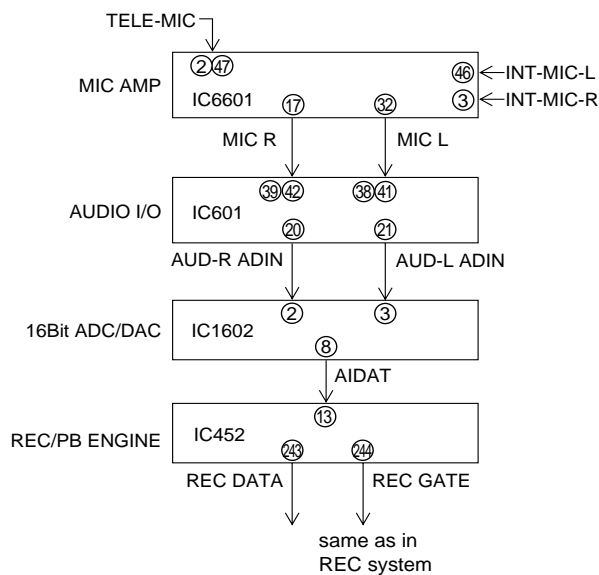
### 12-3. FLOW IN PB MODE (VIDEO)



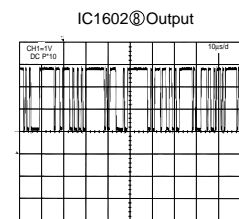
### WAVEFORM DIAGRAM (DURING COLOR BAR PLAYBACK)



### 12-4. FLOW IN REC MODE (AUDIO)

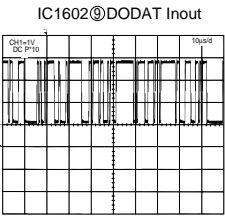
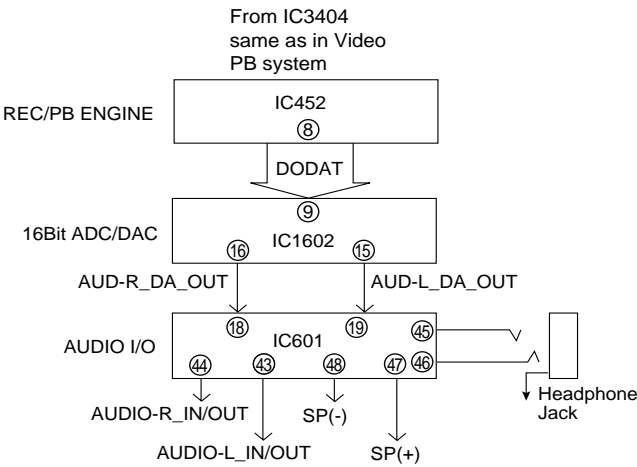


### WAVEFORM DIAGRAM (1.6 kHz SINE WAVE)



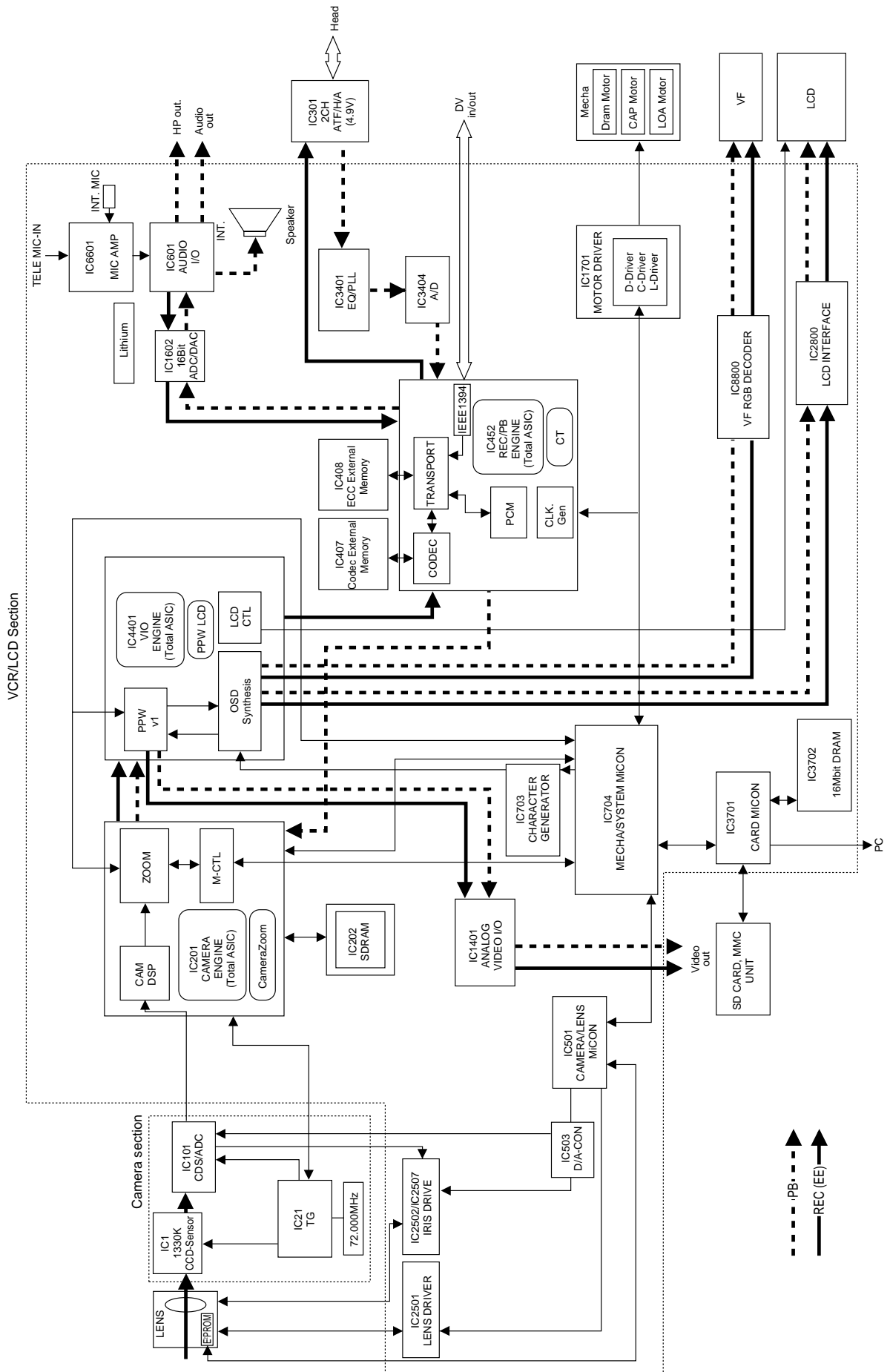
12-5. FLOW IN PB MODE (AUDIO)

WAVEFORM DIAGRAM(1.6 kHz SINE WAVE)

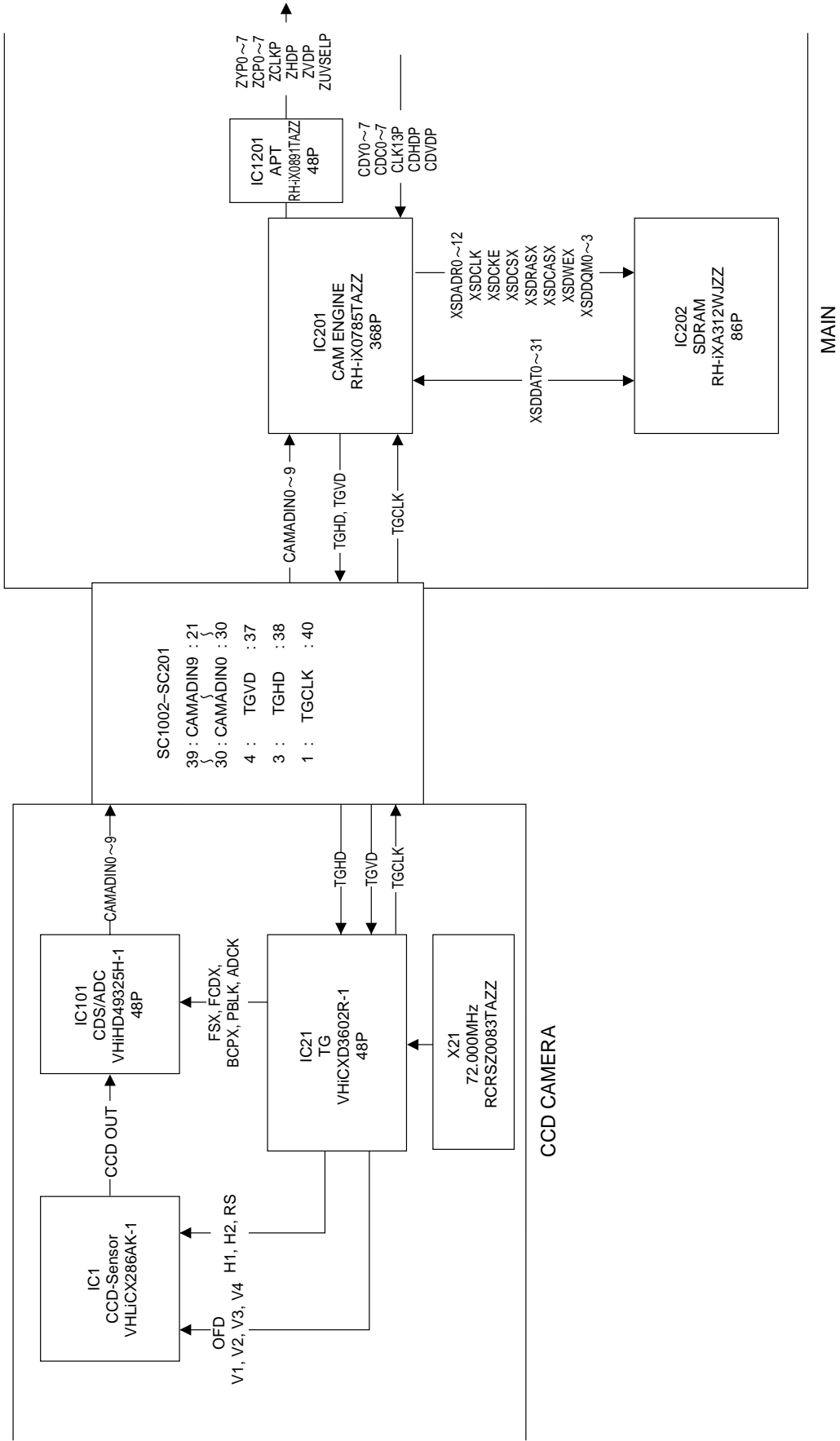


# 13. BLOCK DIAGRAMS

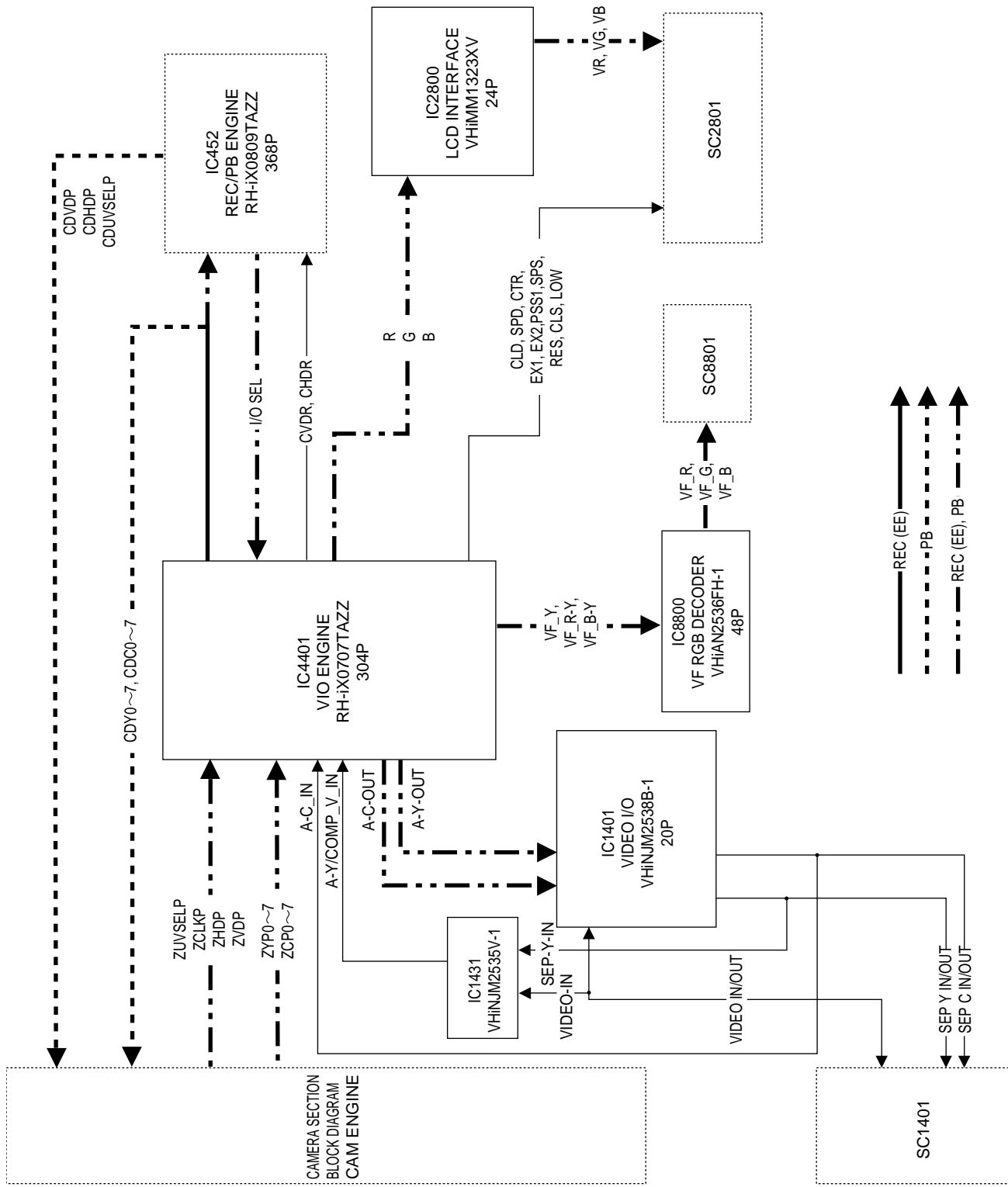
## 13-1. SYSTEM BLOCK DIAGRAM



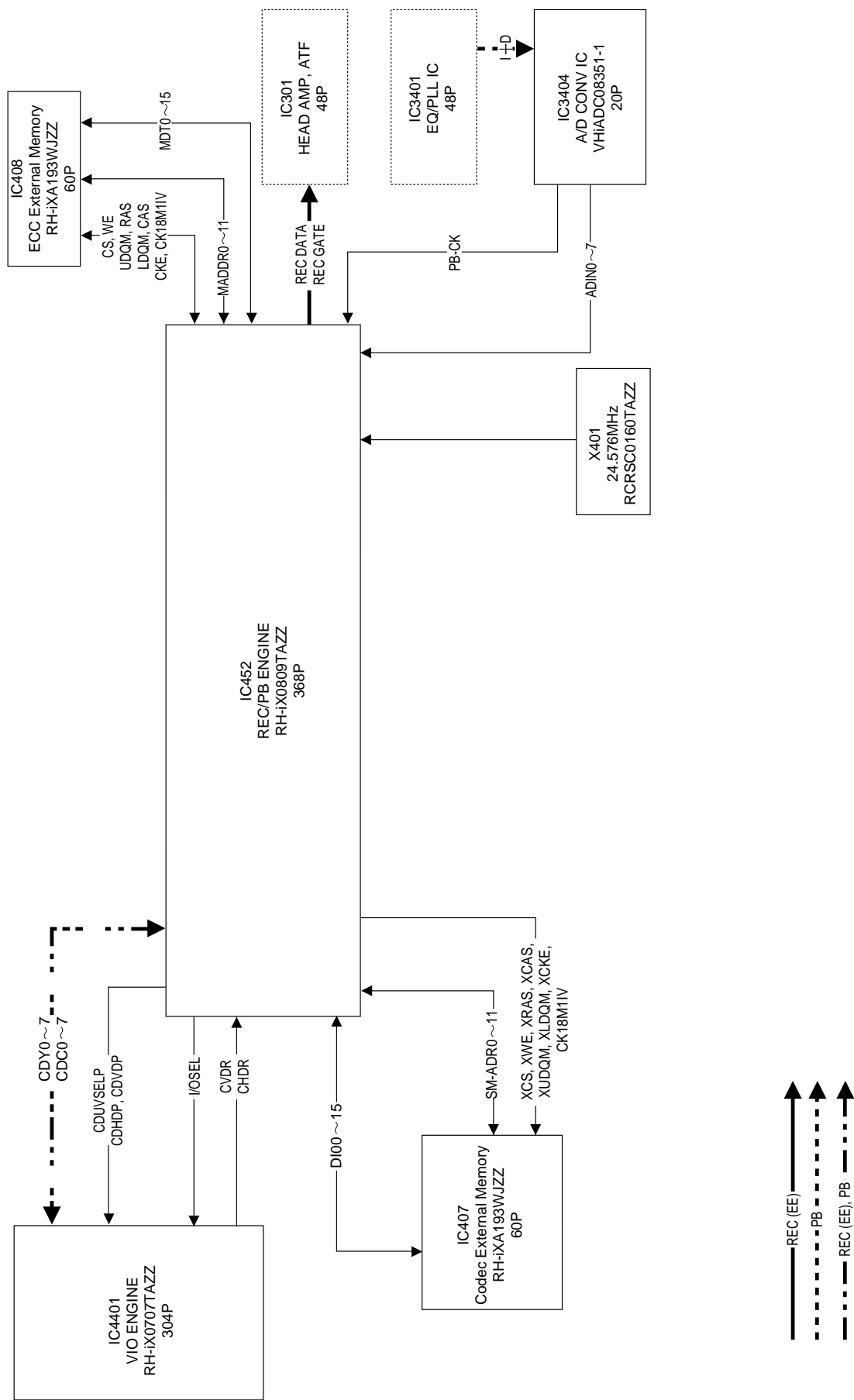
13-2. CAMERA SECTION BLOCK DIAGRAM



## 13-3. VIO ENGINE SECTION BLOCK DIAGRAM

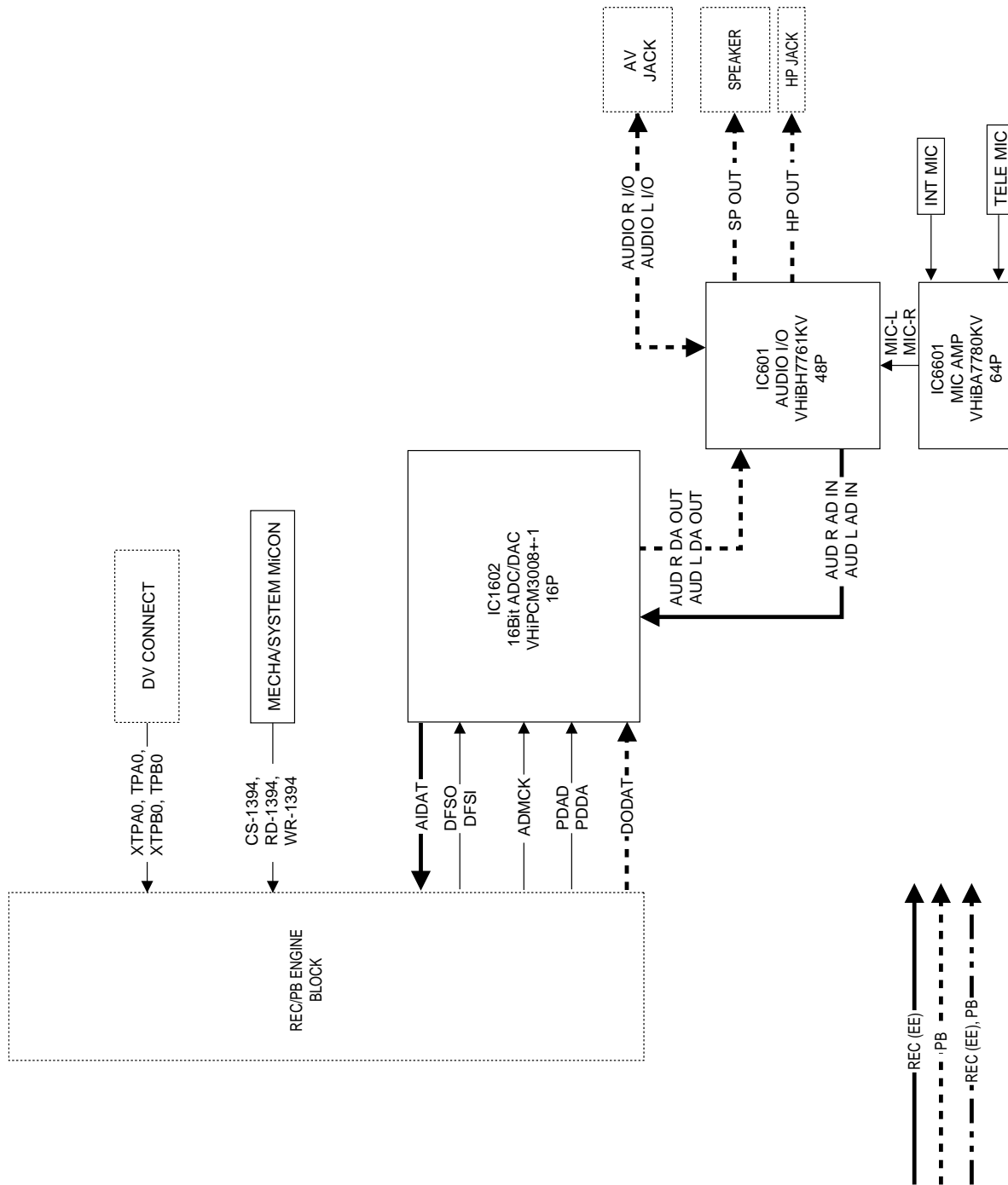


13-4. REC/PB SECTION BLOCK DIAGRAM

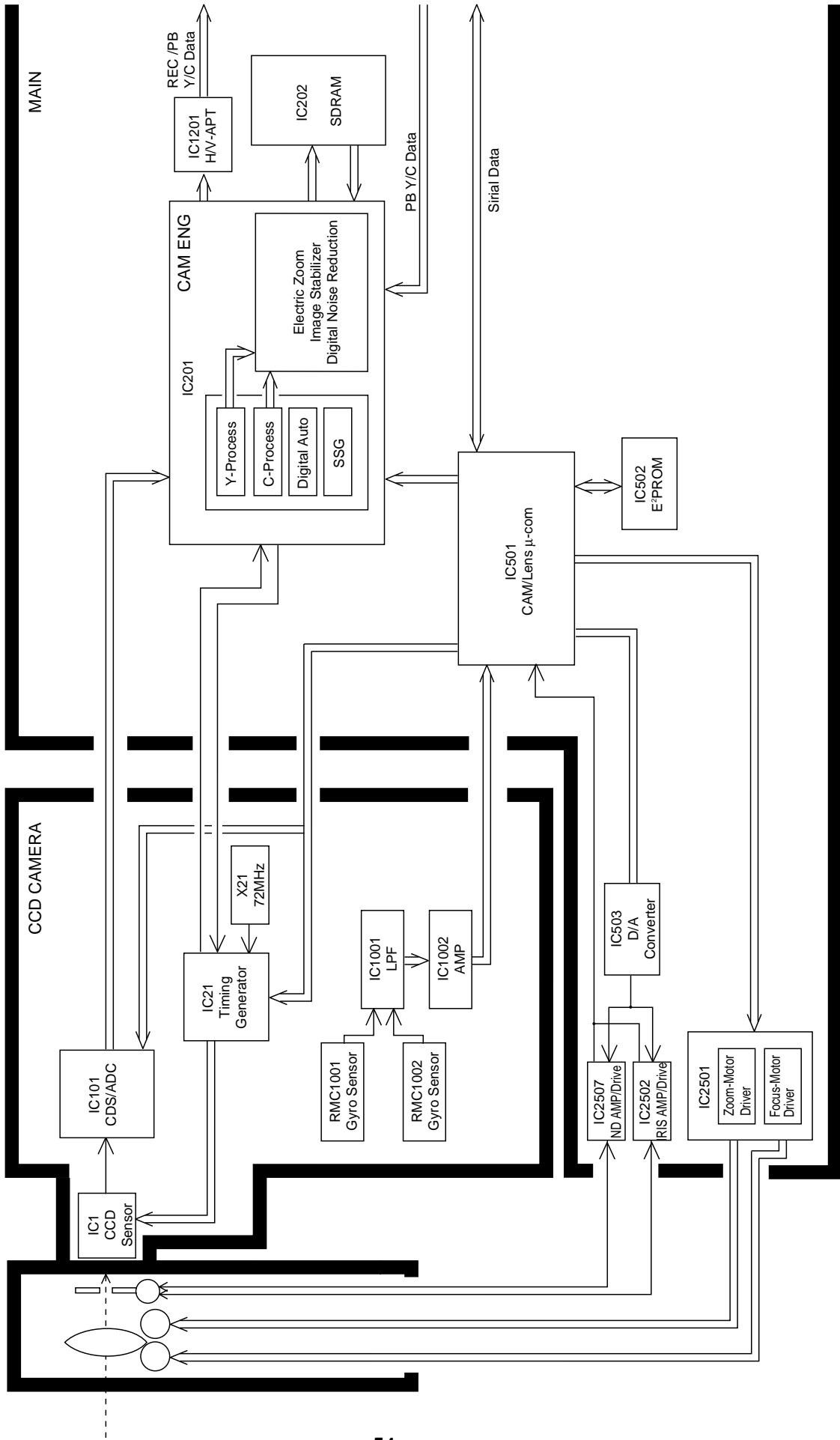




## 13-5. AUDIO/DIGITAL OUTPUT SECTION BLOCK DIAGRAM



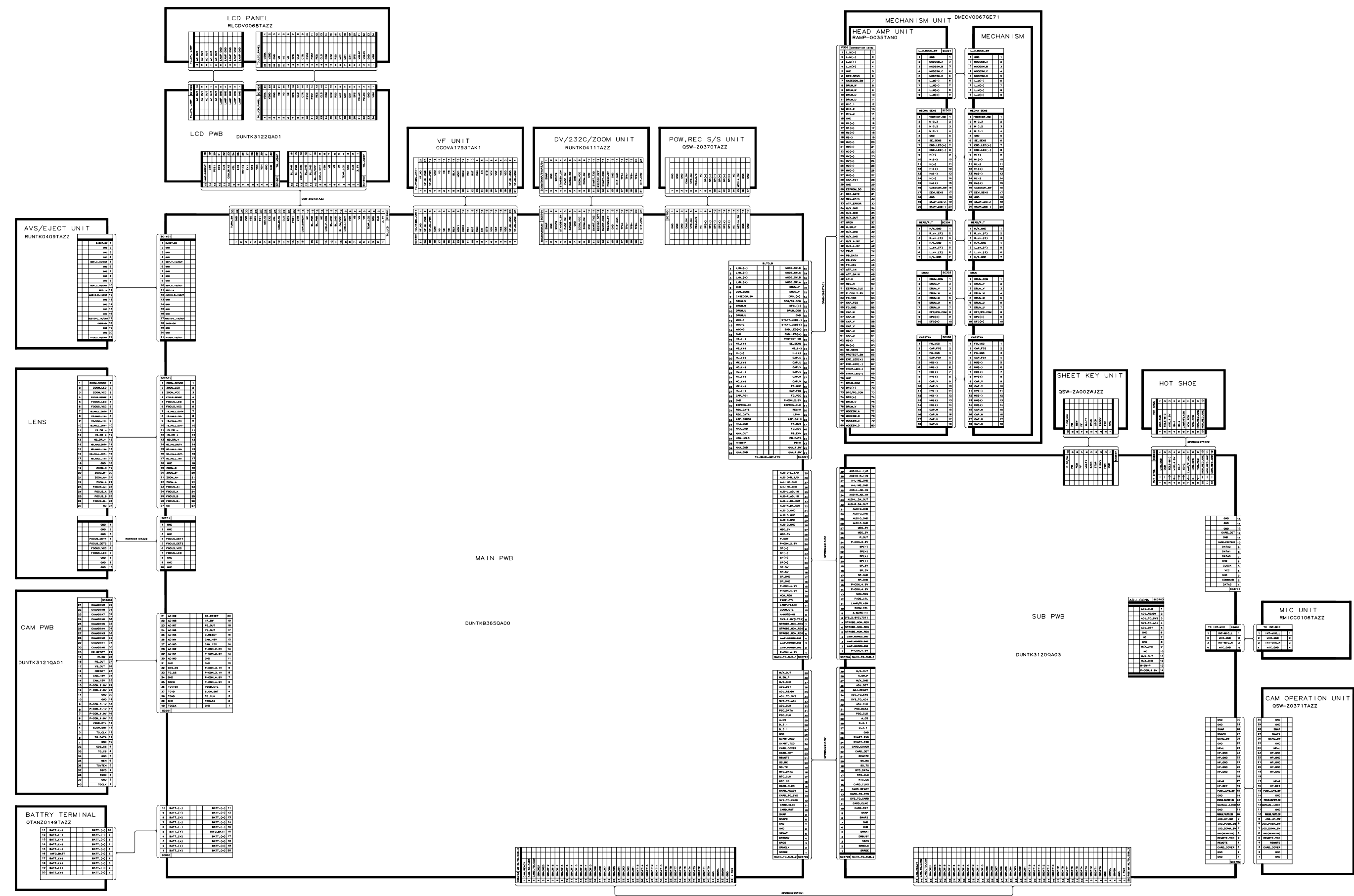
13-6. CAMERA CIRCUIT BLOCK DIAGRAM



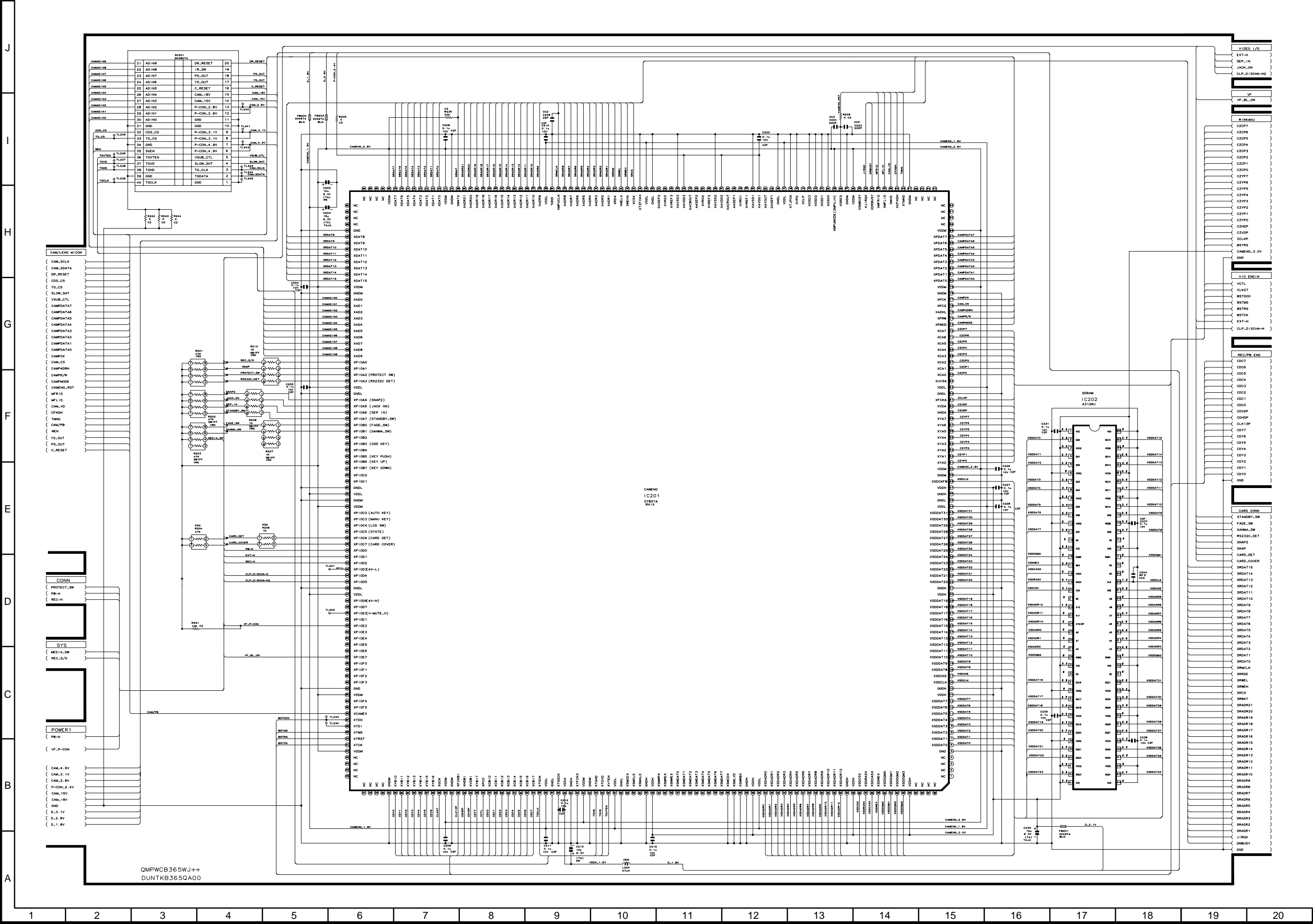
- M E M O -

[illegible]

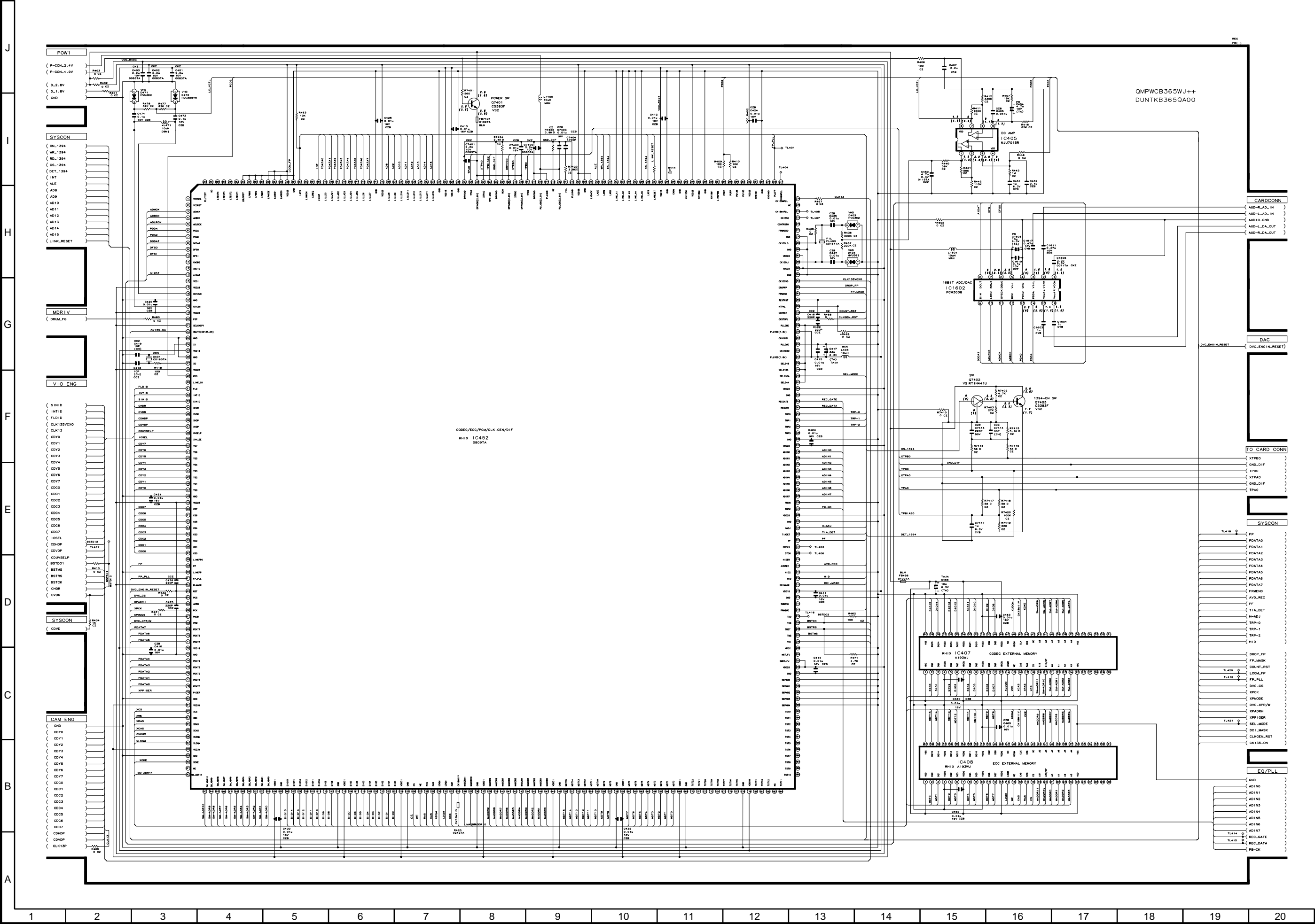
14. SCHEMATIC DIAGRAMS 14-1. OVERALL SCHEMATIC DIAGRAM

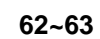


14-2. CAMERA ENGINE SCHEMATIC DIAGRAM

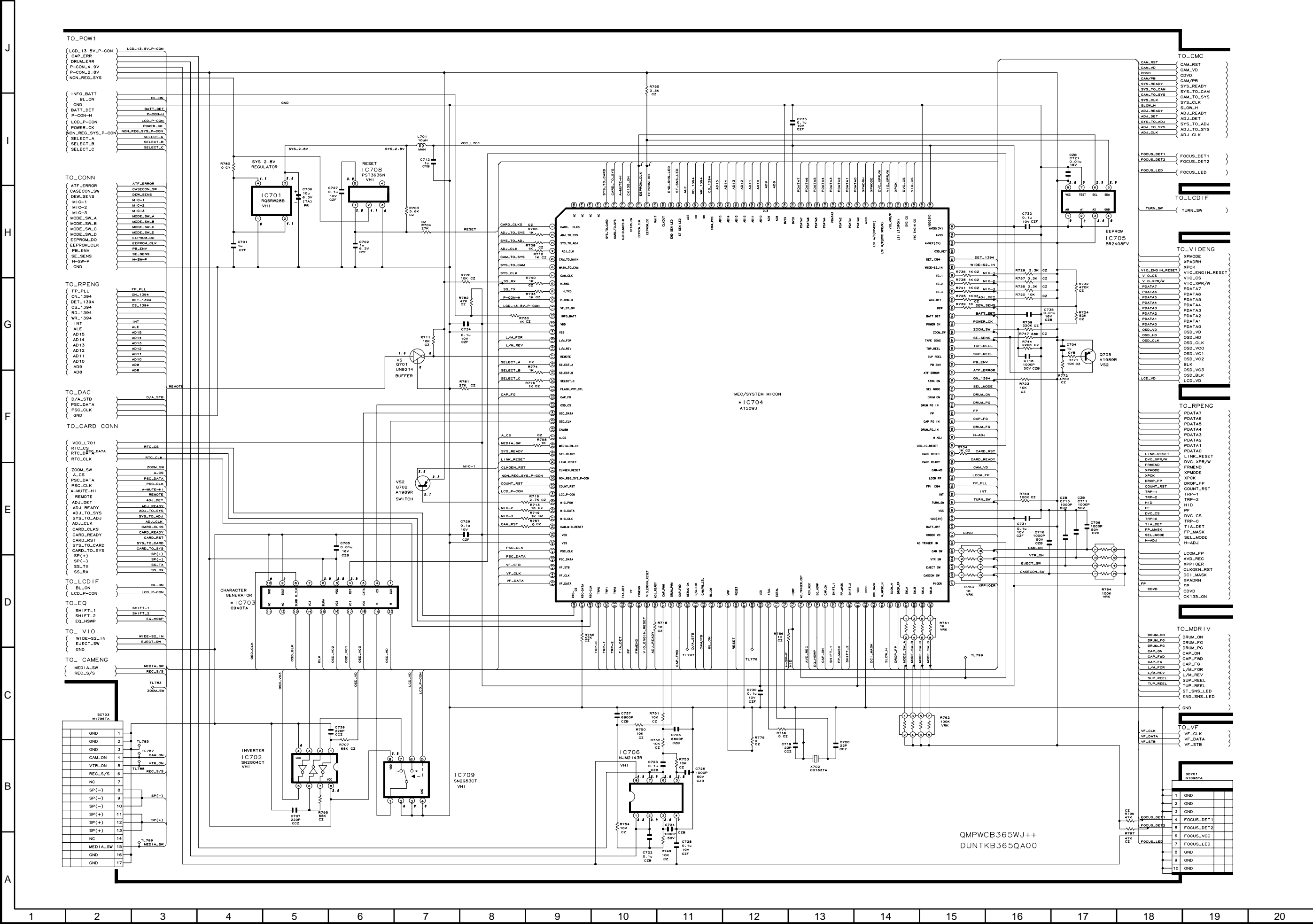


14-3. REC/PB ENGINE SCHEMATIC DIAGRAM



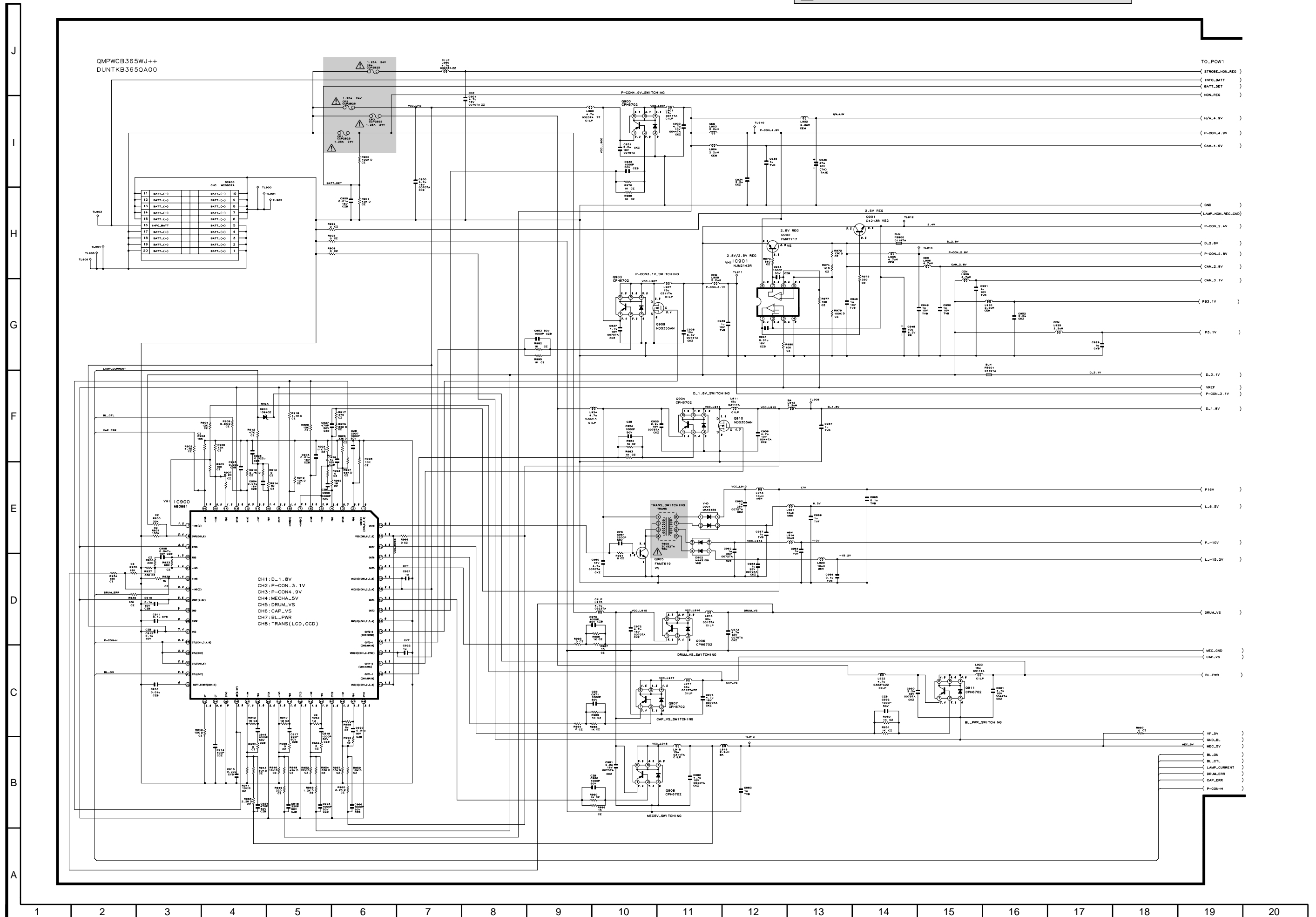


14-5. MEC/SYS MiCON SCHEMATIC DIAGRAM

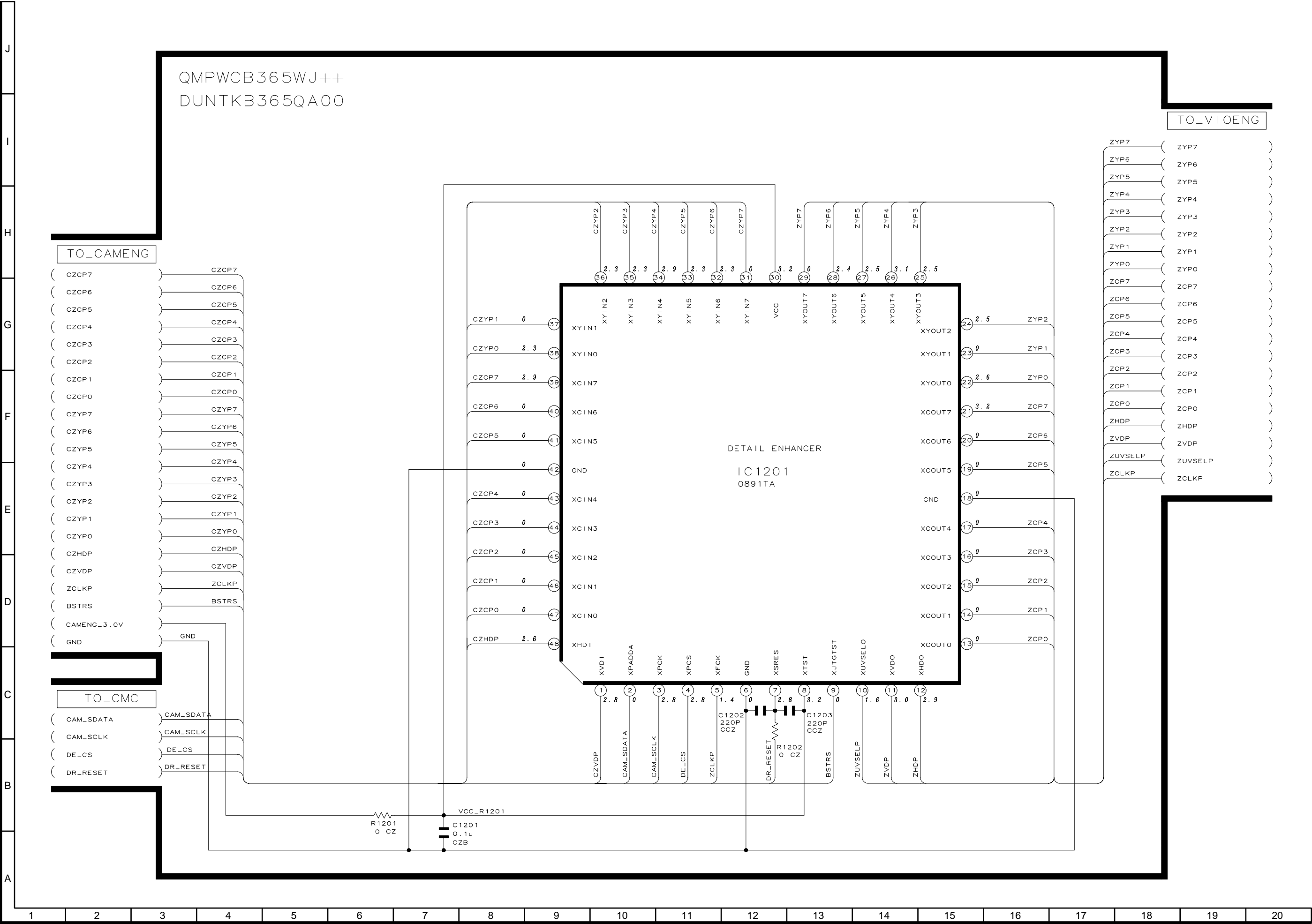




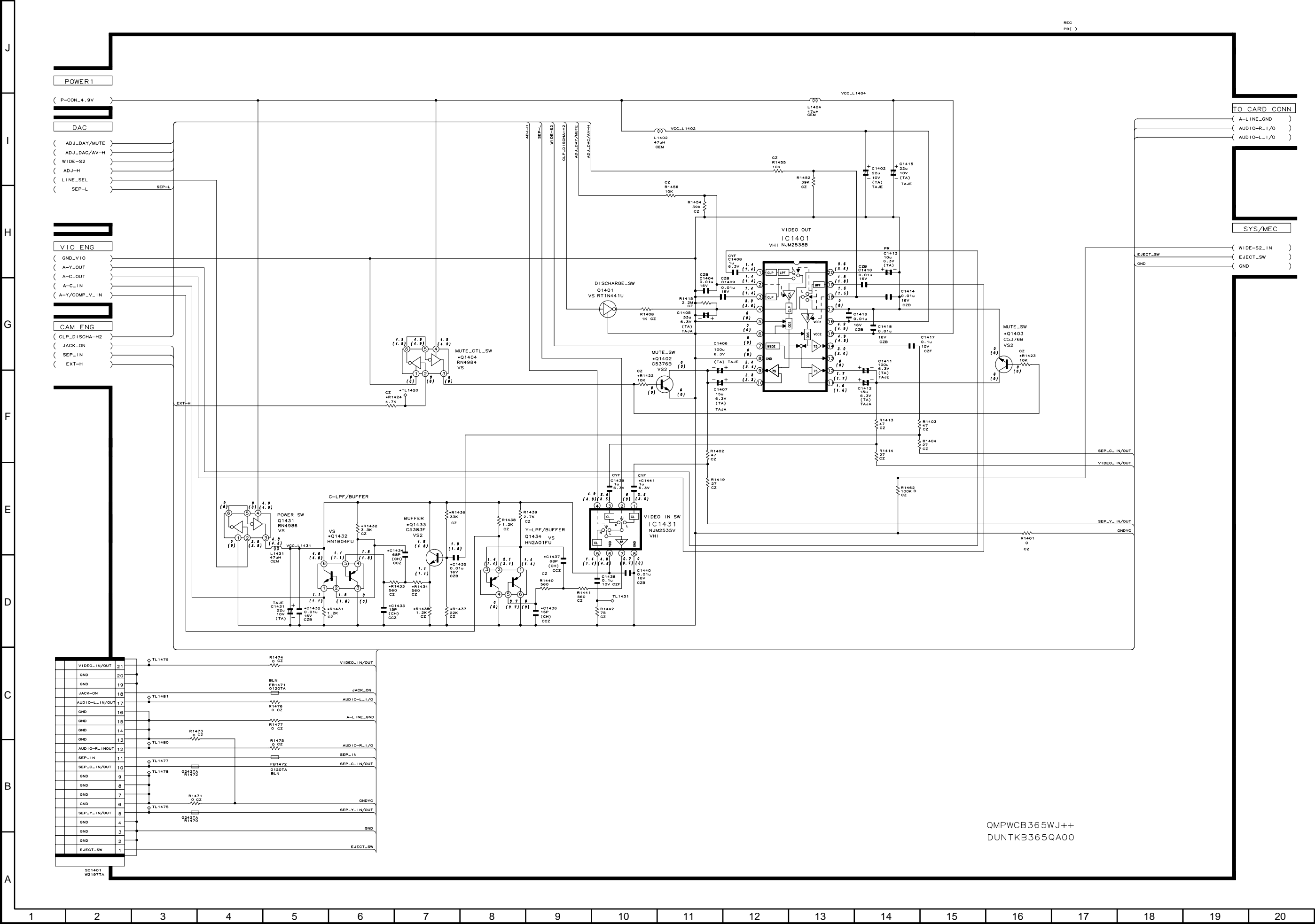
**⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS**



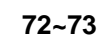
14-7. RINKAKU SCHEMATIC DIAGRAM

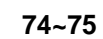


14-8. VIDEO I/O SCHEMATIC DIAGRAM

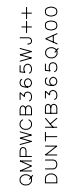


QMPWCB365WJ++  
DUNT KB365QA00

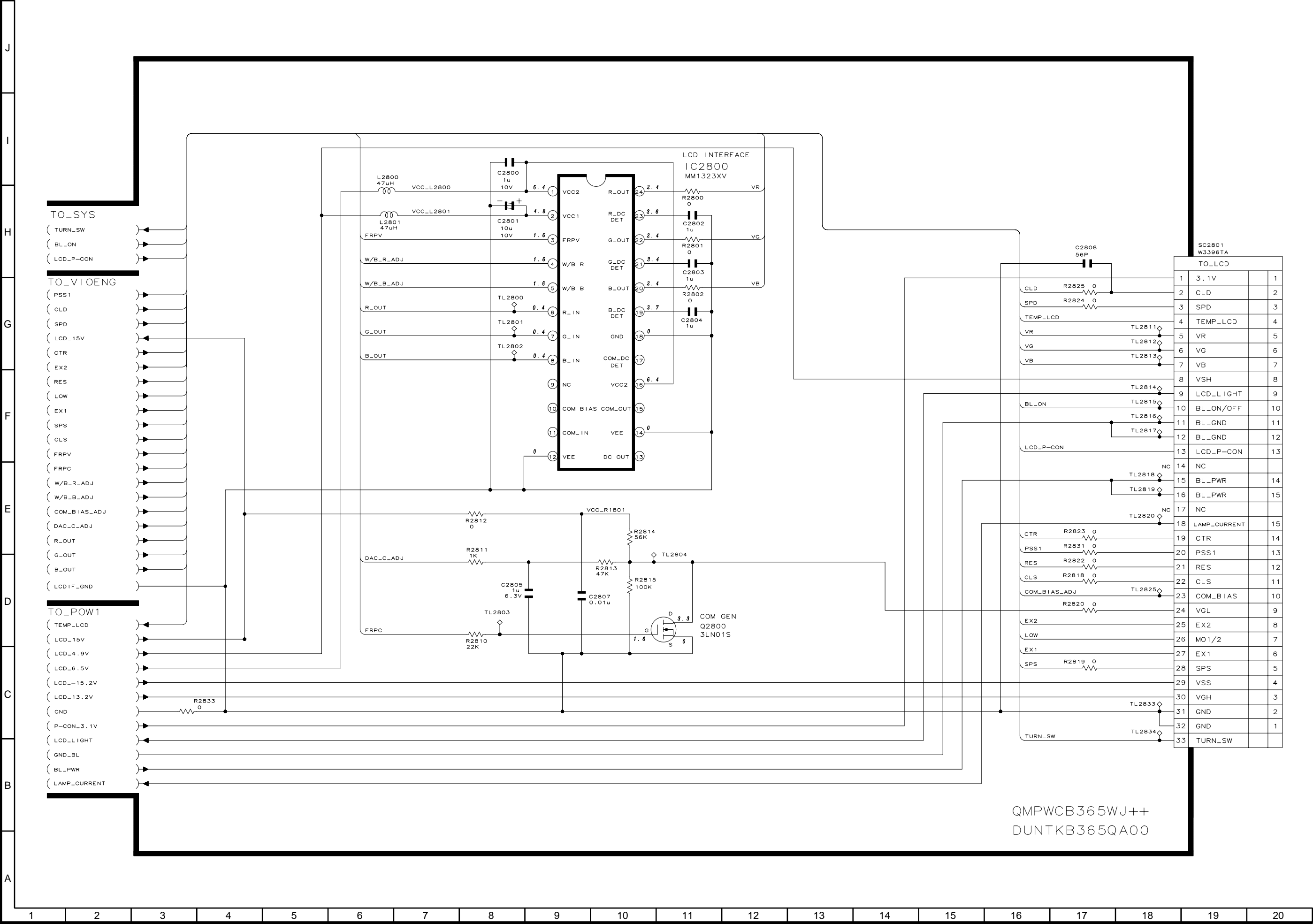




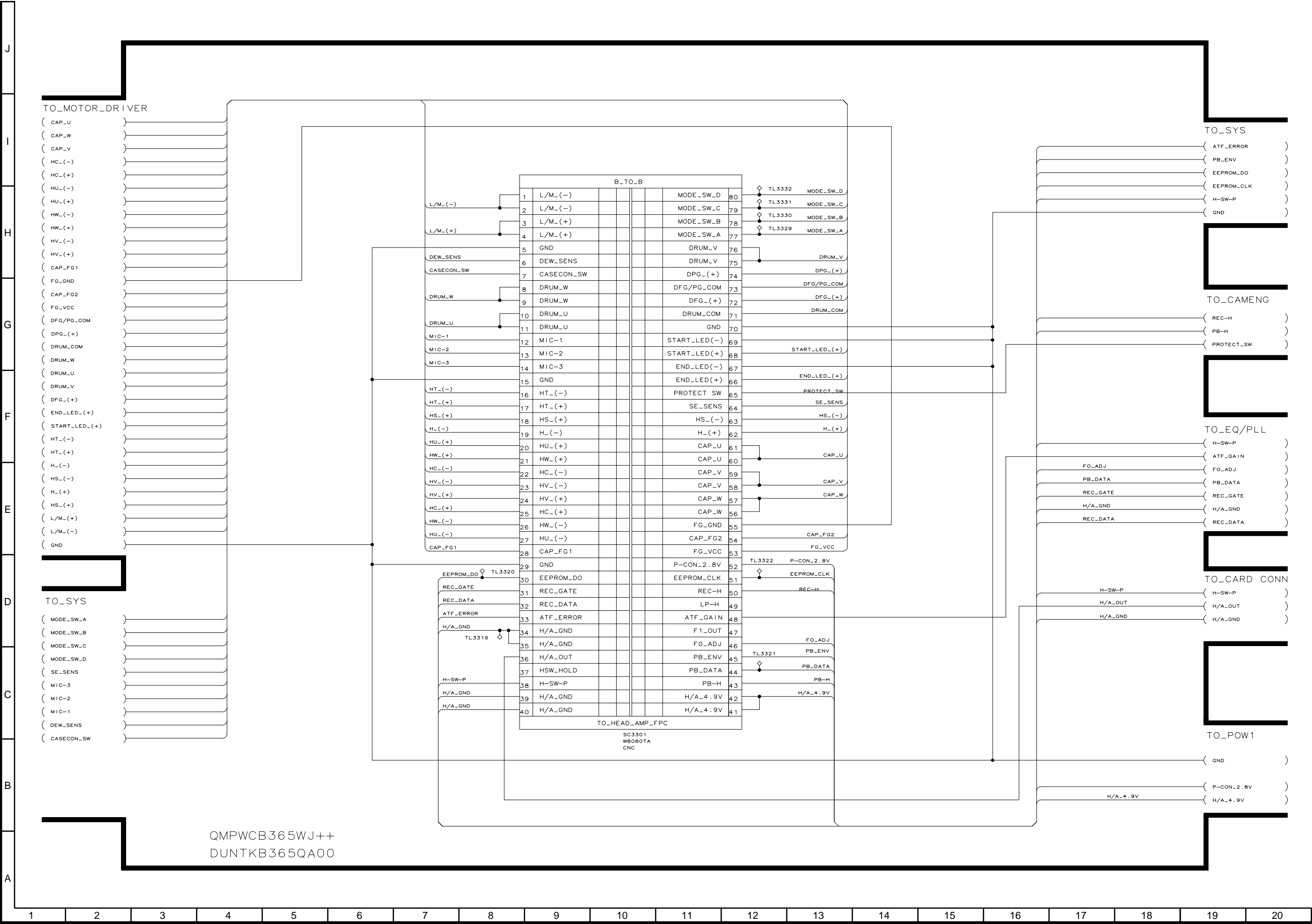
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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14-12. LCD IF SCHEMATIC DIAGRAM

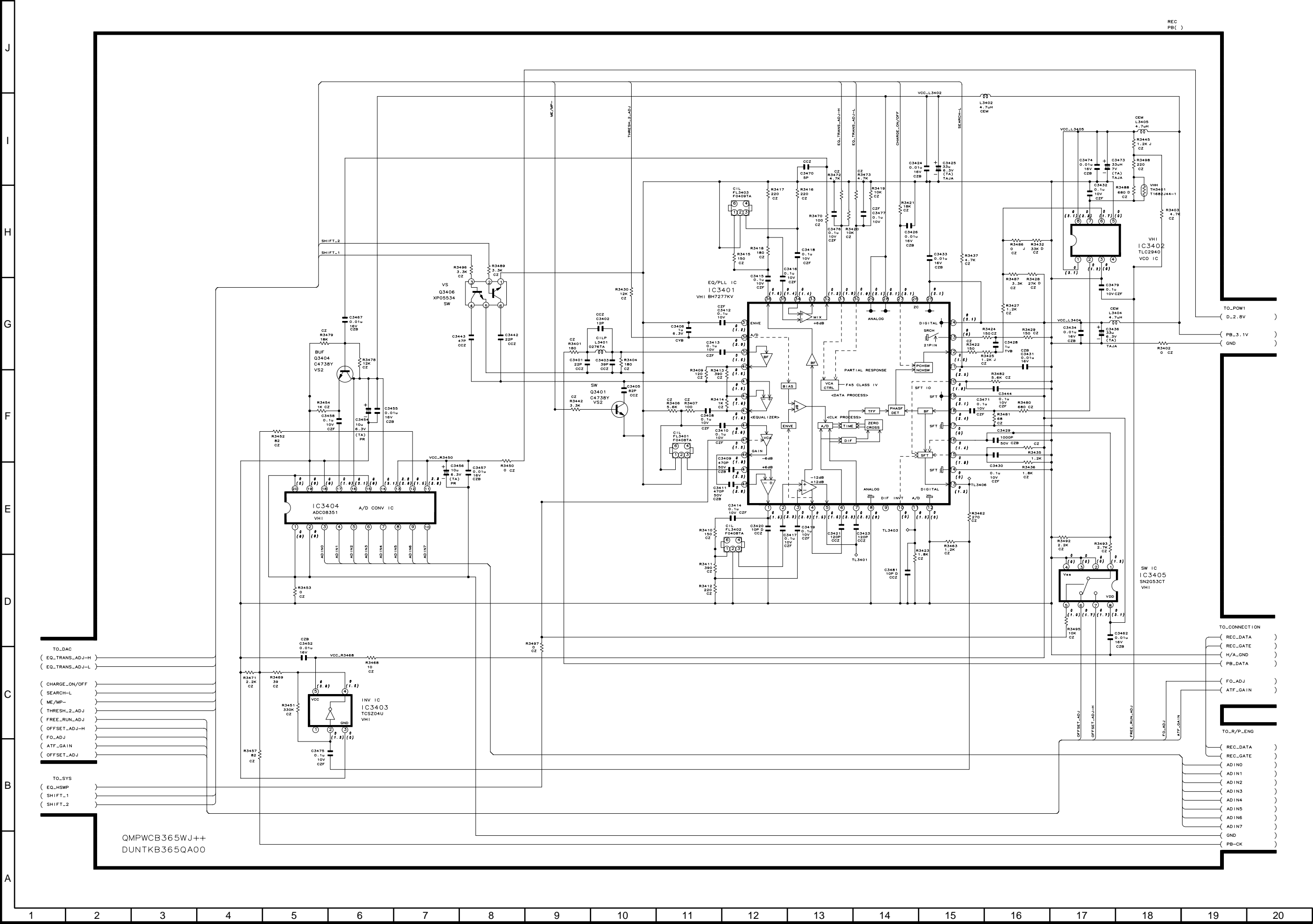


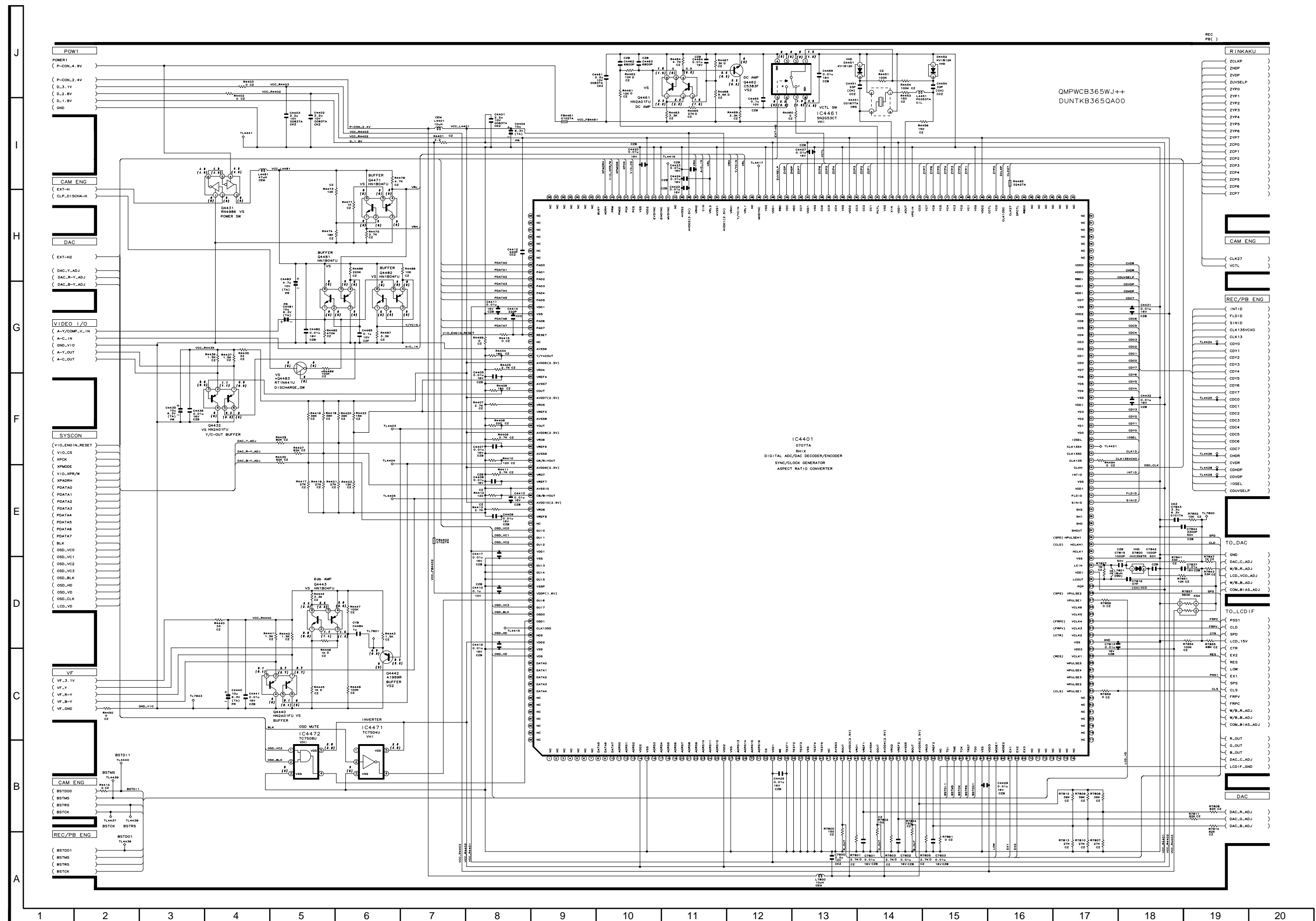
14-13. CONNECTION(B-B) SCHEMATIC DIAGRAM



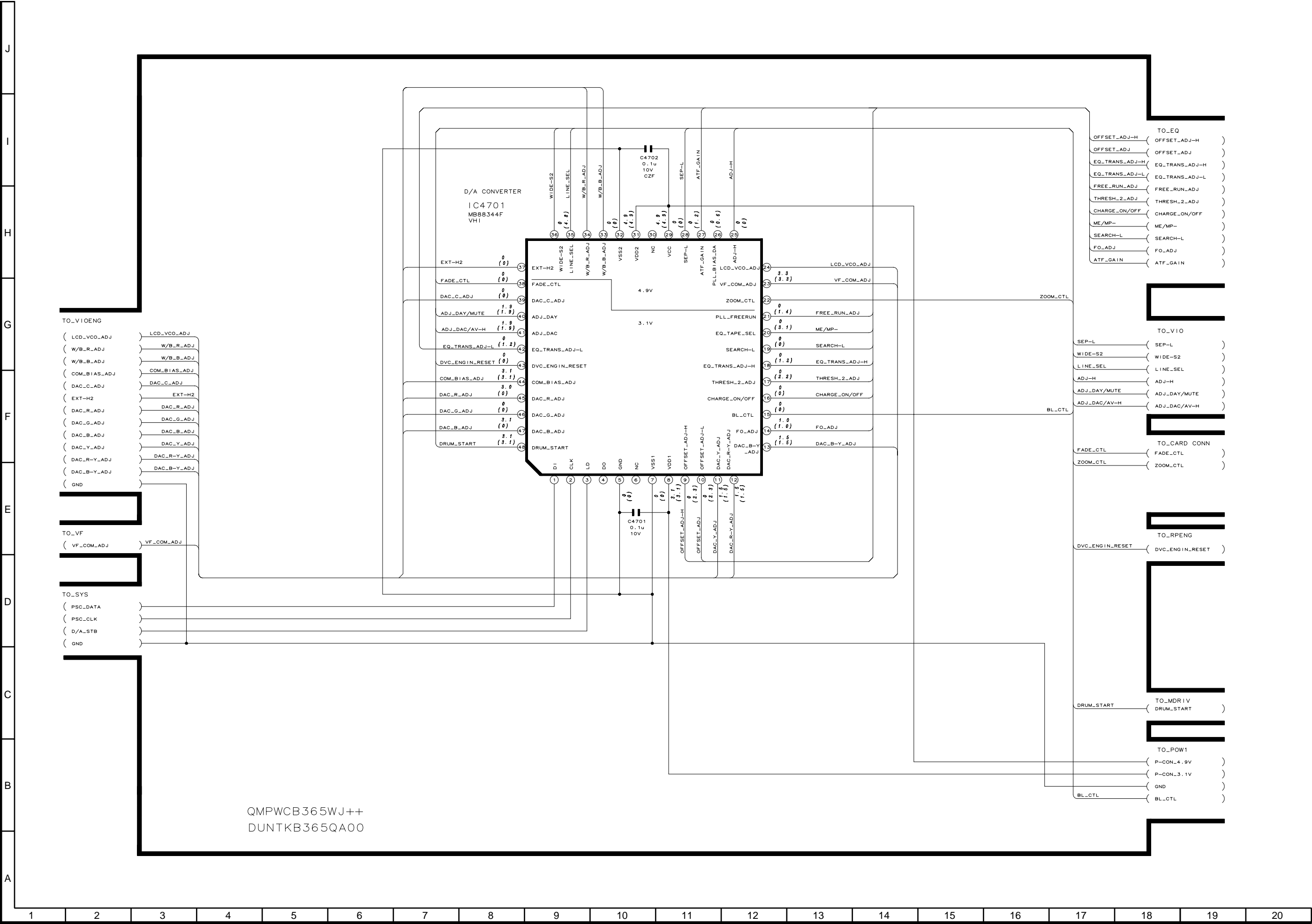


14-14. EQ/PLL SCHEMATIC DIAGRAM

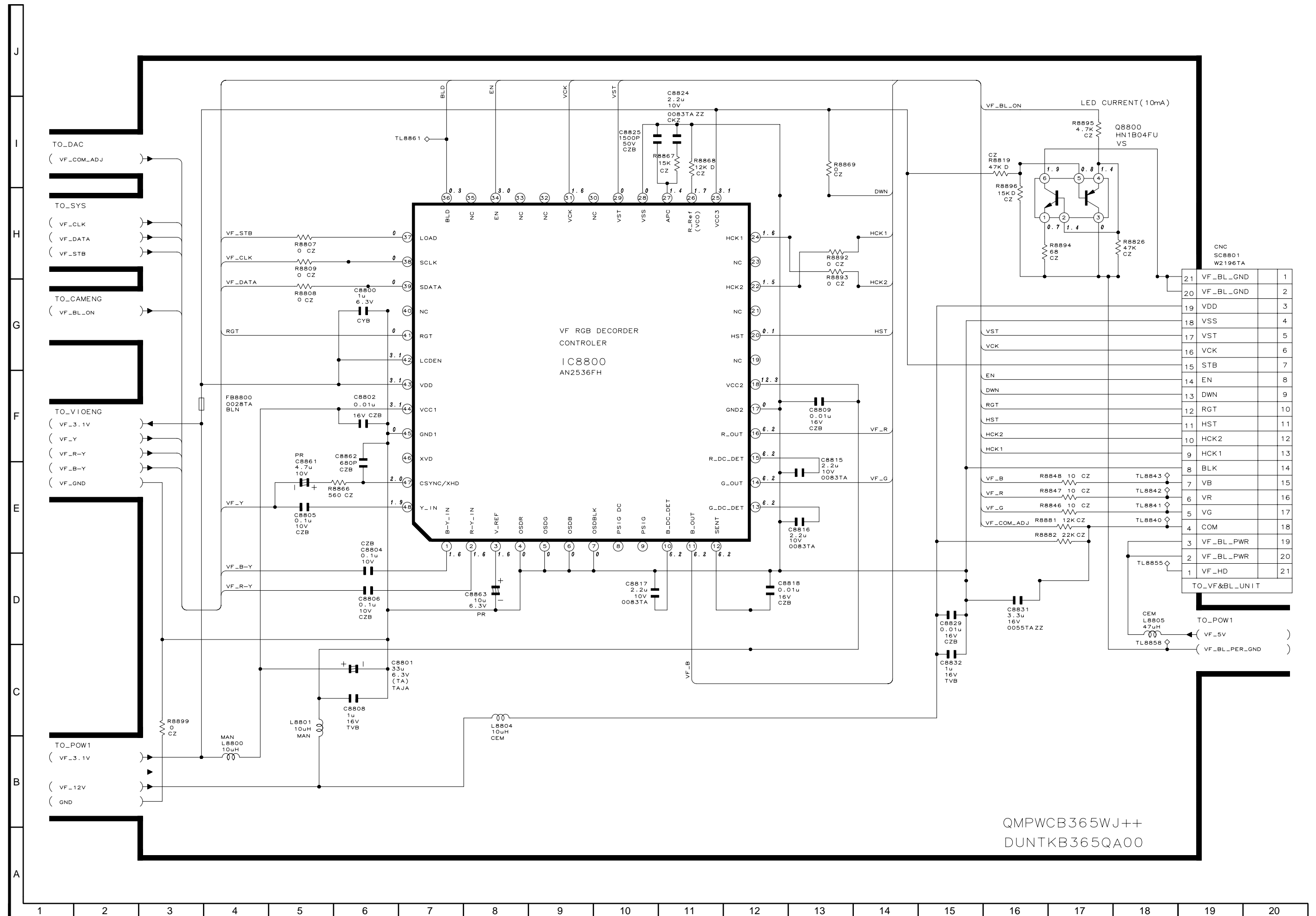




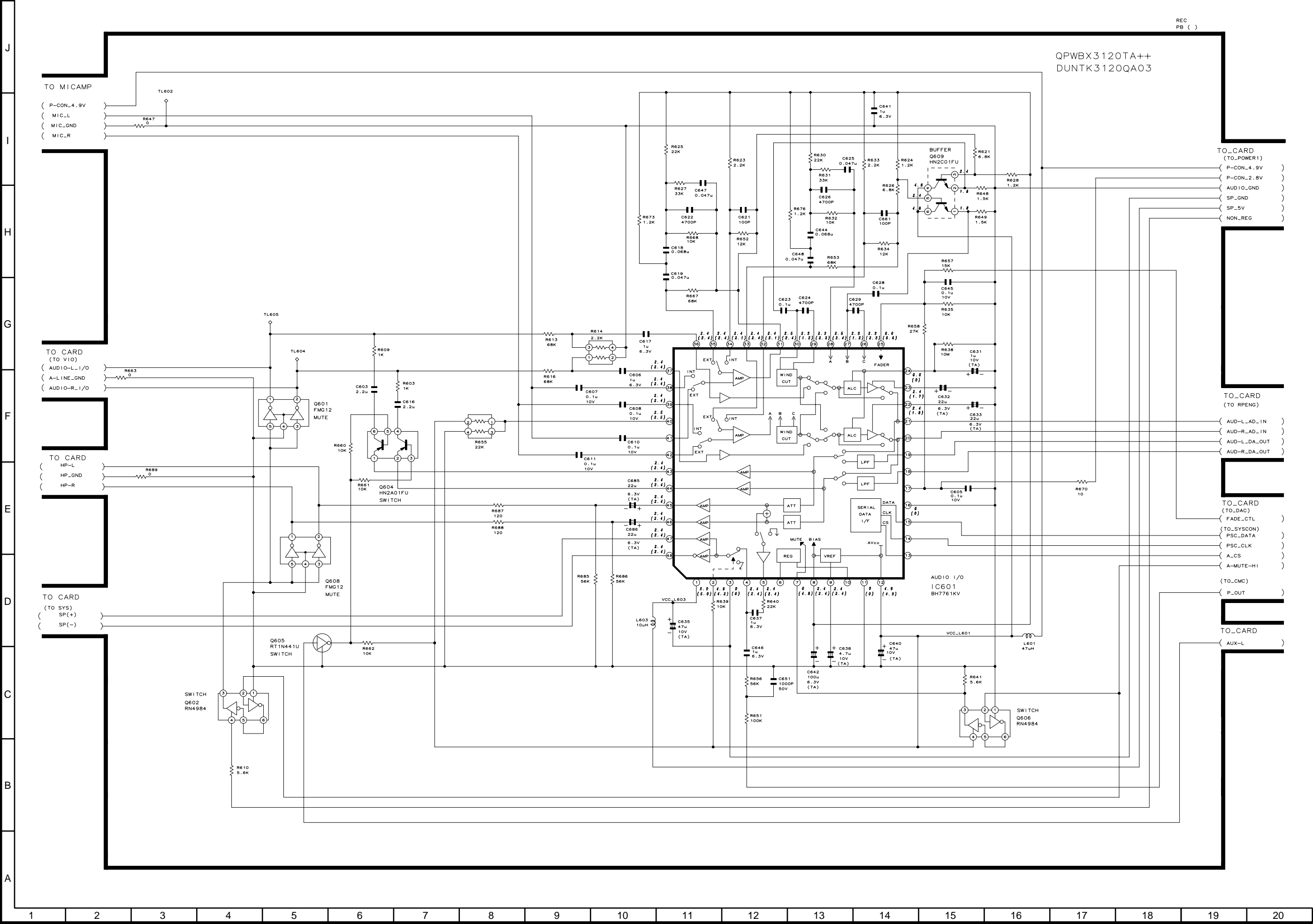
14-16. DAC SCHEMATIC DIAGRAM

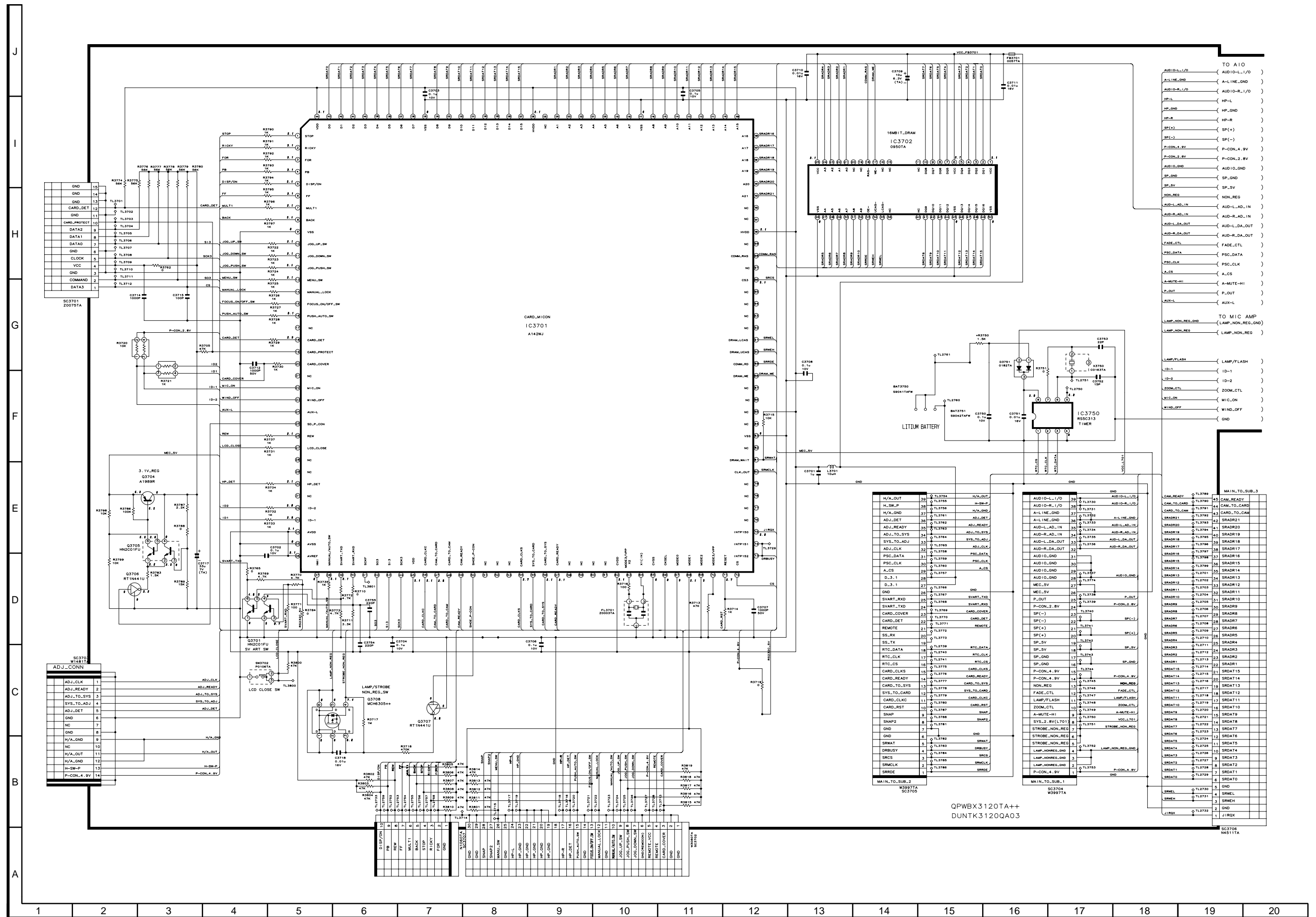


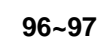




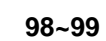
14-19. AUDIO I/O SCHEMATIC DIAGRAM



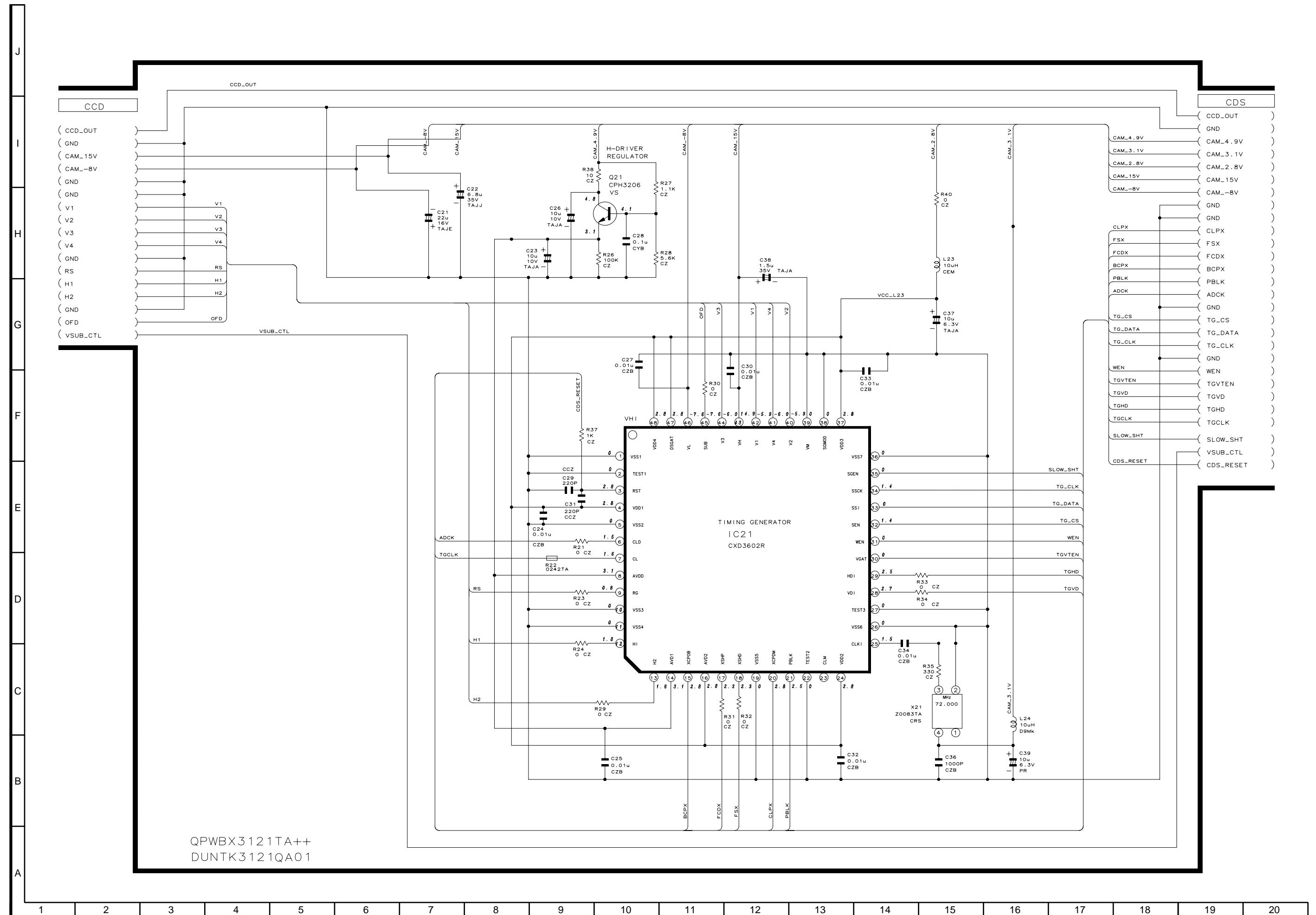




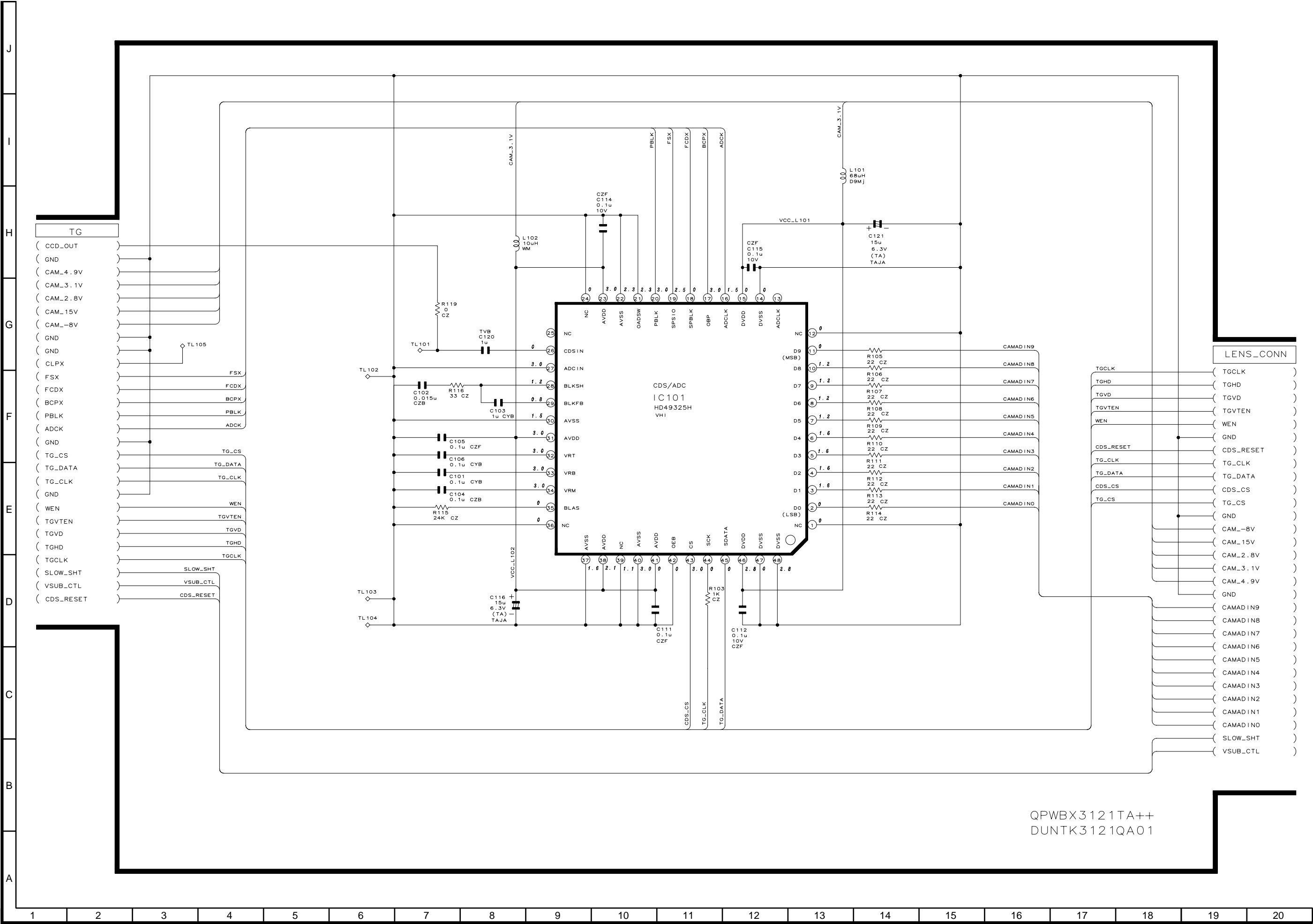




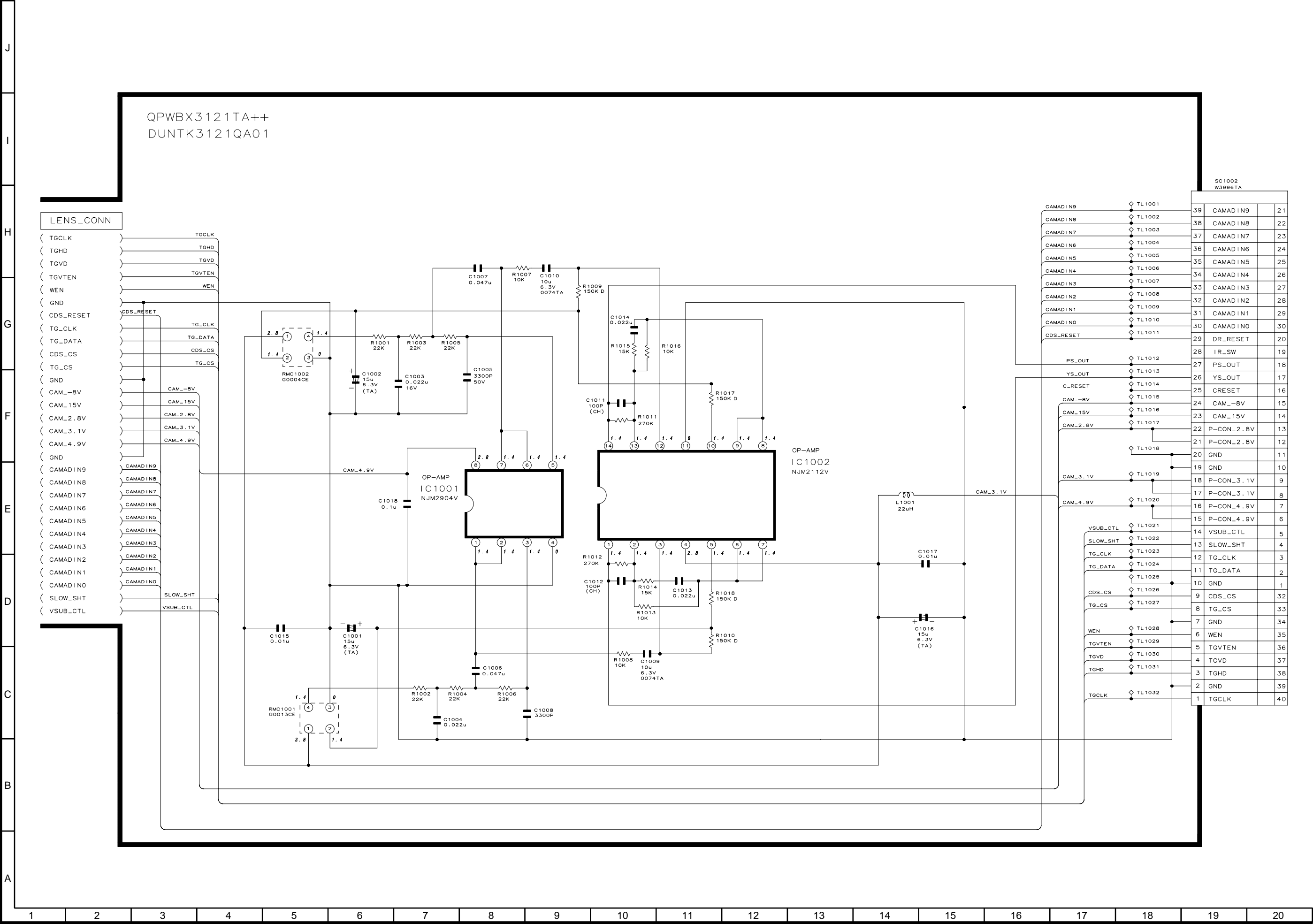
### 14-23. TG SCHEMATIC DIAGRAM



14-24. CDS SCHEMATIC DIAGRAM

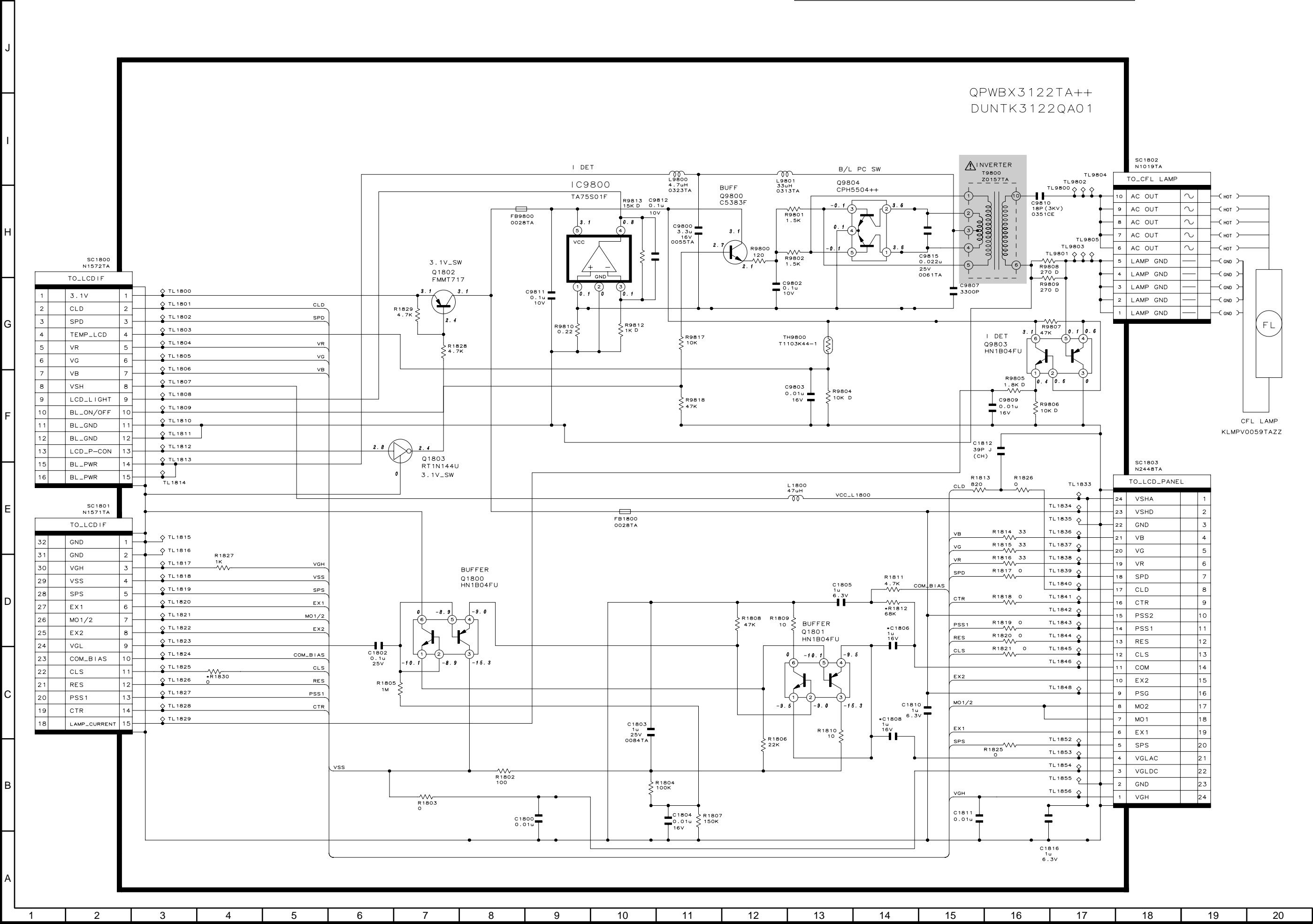


14-25. LCONN SCHEMATIC DIAGRAM

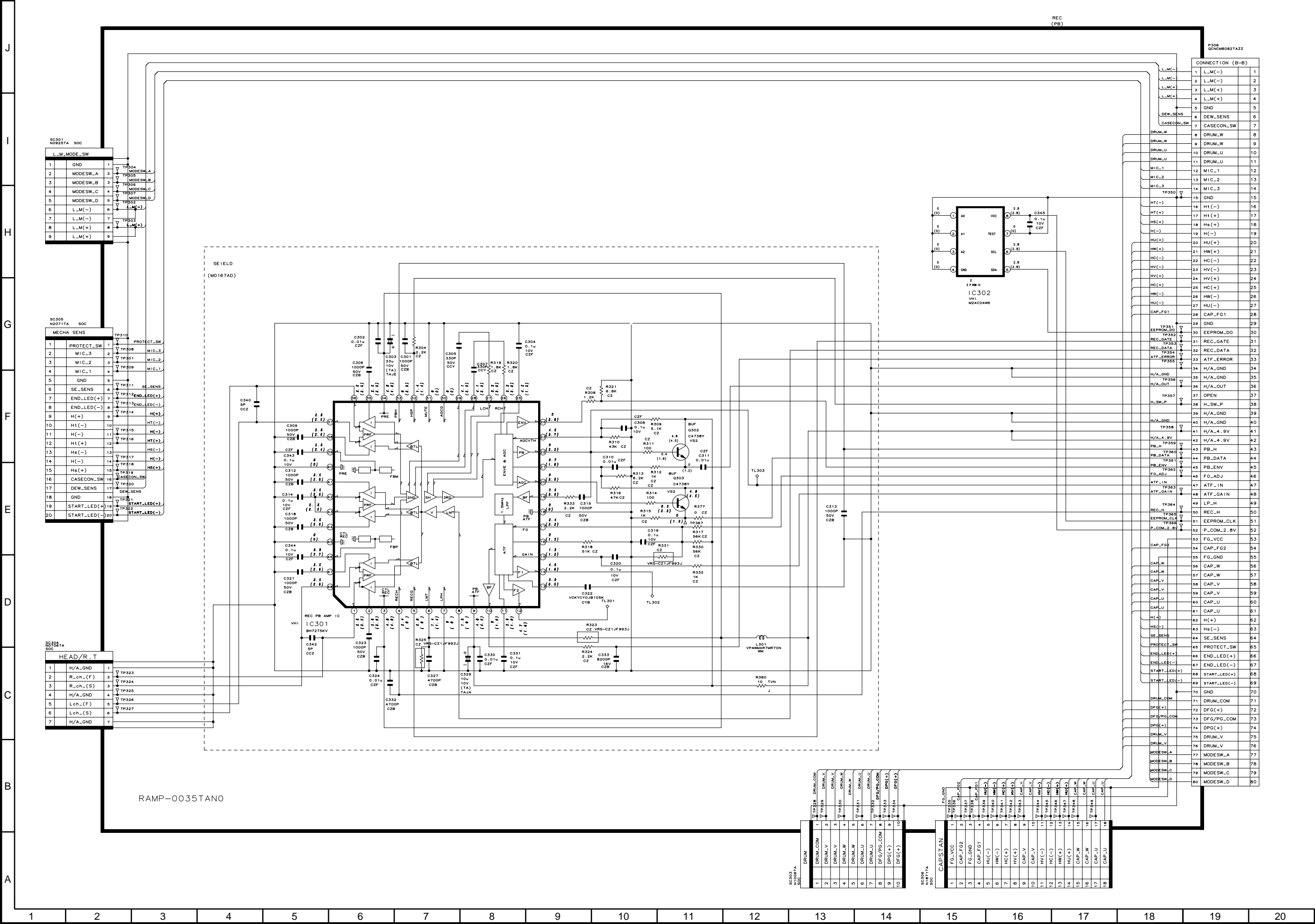


14-26. LCD SCHEMATIC DIAGRAM

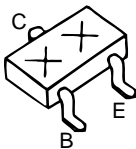
⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



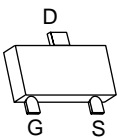
14-27. HEAD AMP SCHEMATIC DIAGRAM



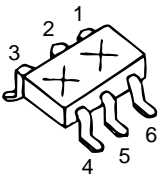
15. SEMICONDUCTOR LEAD IDENTIFICATION



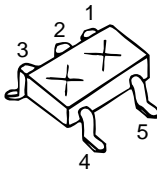
2SA1989R    2SC4627CD  
2SC4738Y    UN9214  
FMMT717    CPH3109  
2SC5383F    CPH3206  
2SA1588Y  
RT1N441U



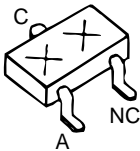
NDS355AN  
3LN01S



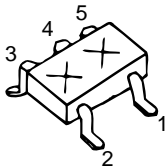
HN2A01FU    FC117  
HN1B04FU    RN4984  
HN2C01FU    RN4986  
RN4990  
XP05534



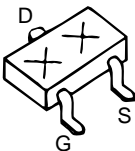
RN1704    TA75S01F  
2SC4944Y    TC7S08U  
TC7S04U  
TCSZ04U



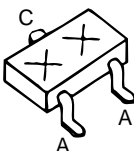
MC2852



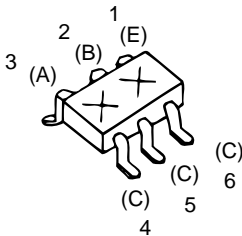
FMG12



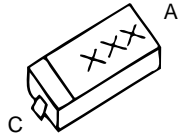
NDS332P



MA132WK

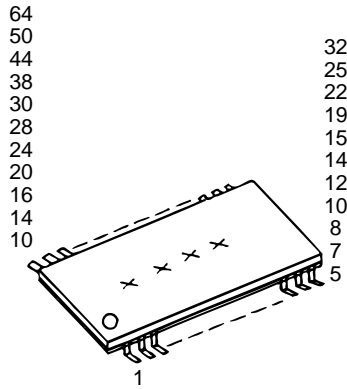


CPH6702



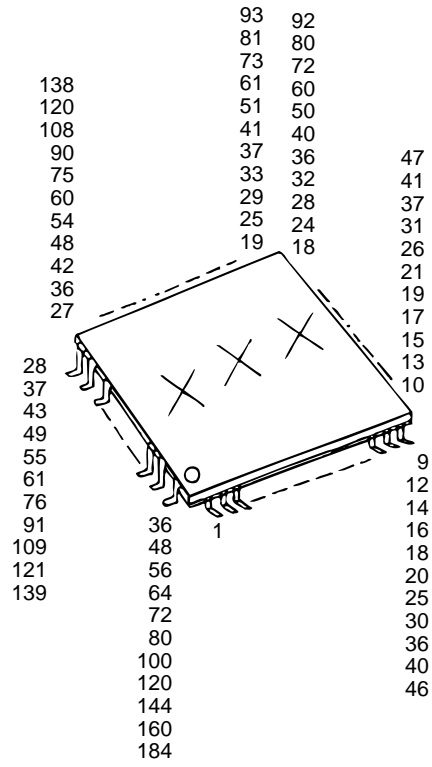
HVU359TR  
EX1394CE  
HVC359TR

KV1812K  
HVU362



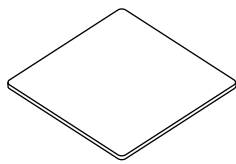
LV4051AT  
NJM2538B  
NJM2904V  
NJM2902V

MB8346BV  
LV4051AT  
ADC08351

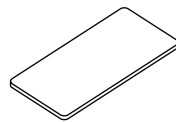


BH7277KV  
BH7275KV  
MB3881

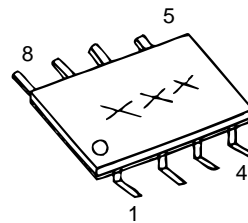
MB88344F  
LB11990W



IX0707TA  
IX0809TA  
IX0785TA

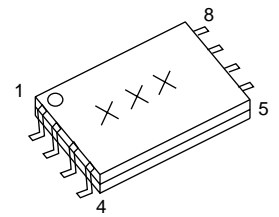


IXA193WJ



NJM2143R  
TLC2940

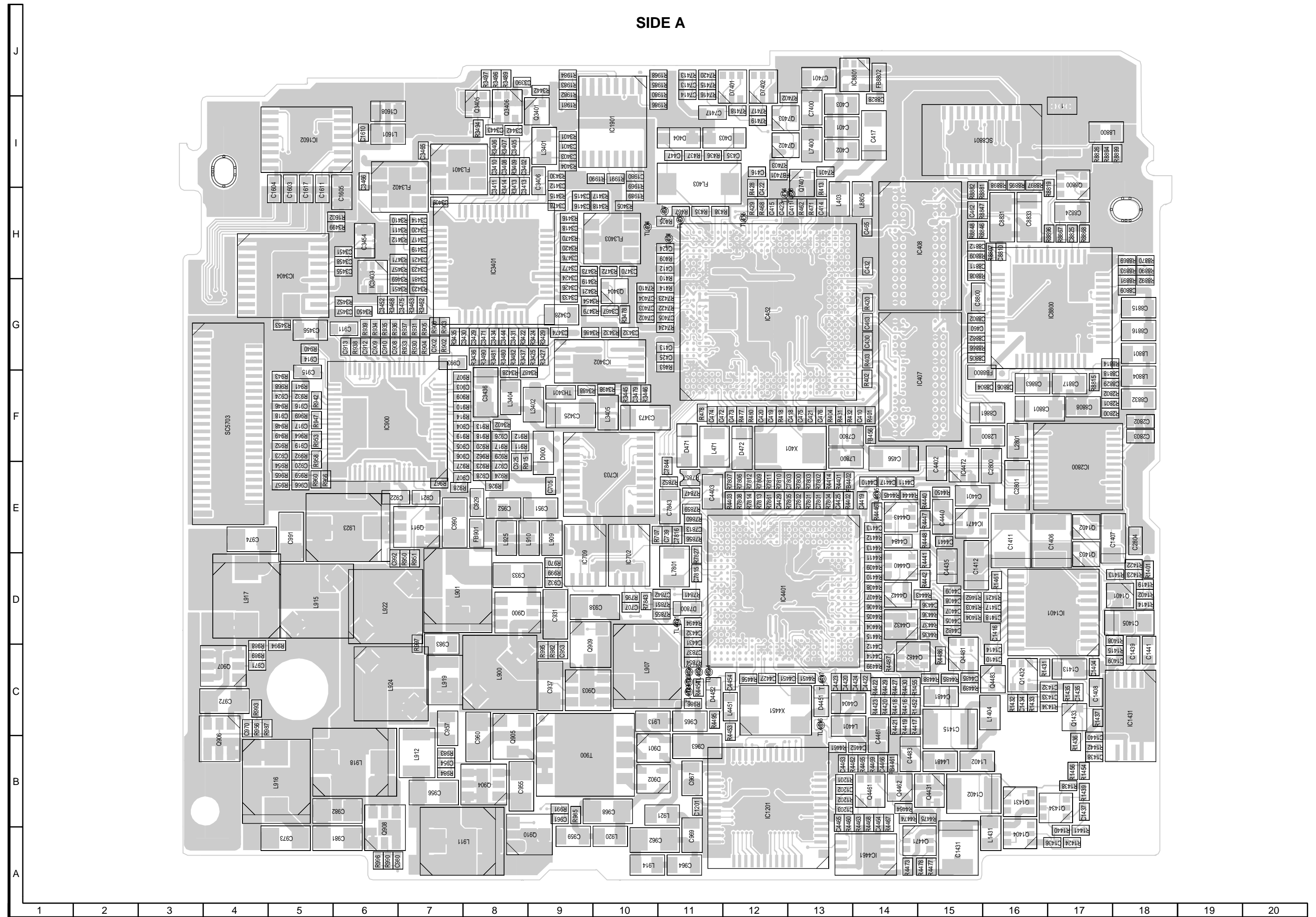
M24C04W6  
NJM2143R



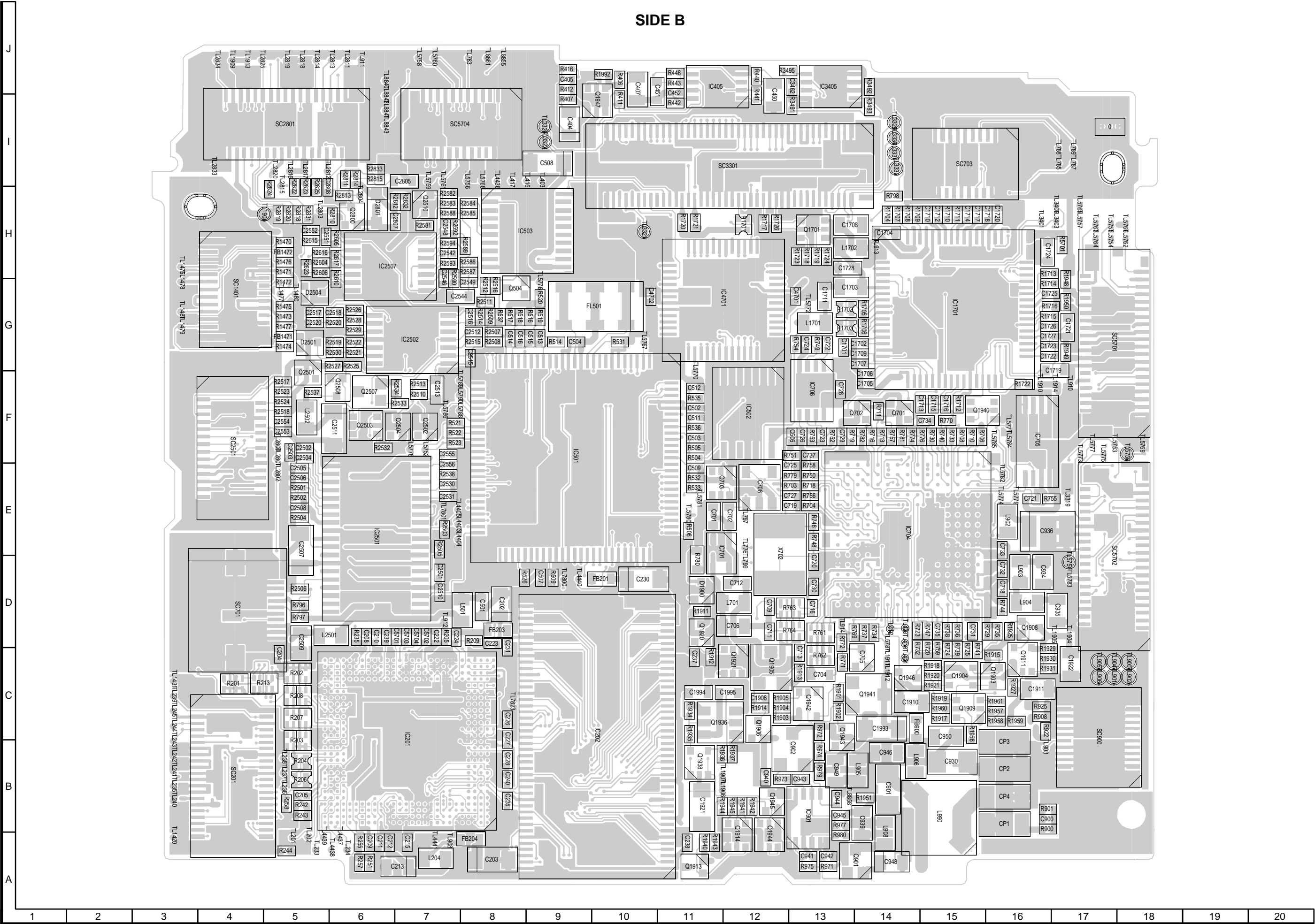
NJM2535V  
SN2G53CT  
NJU7015R



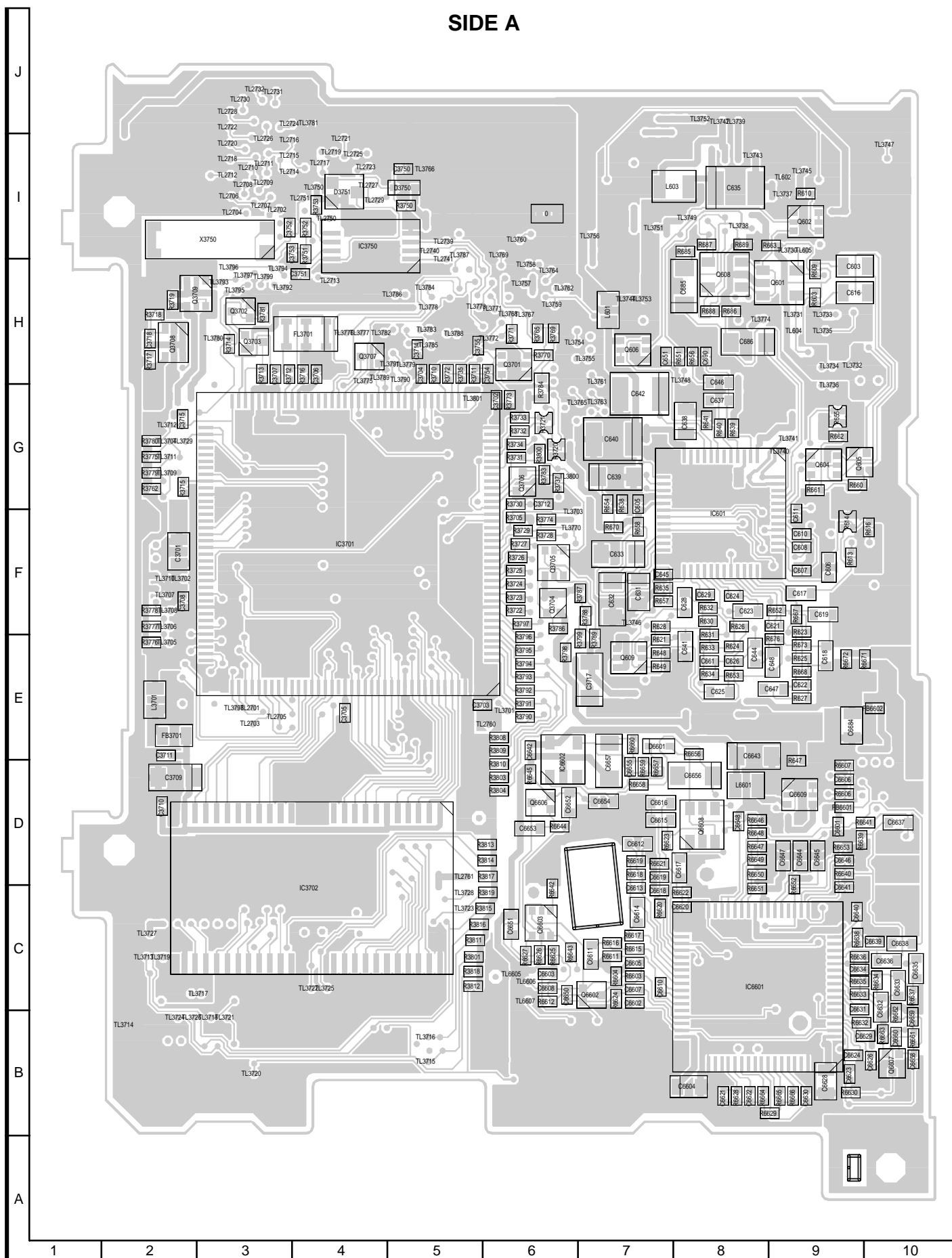
112~113



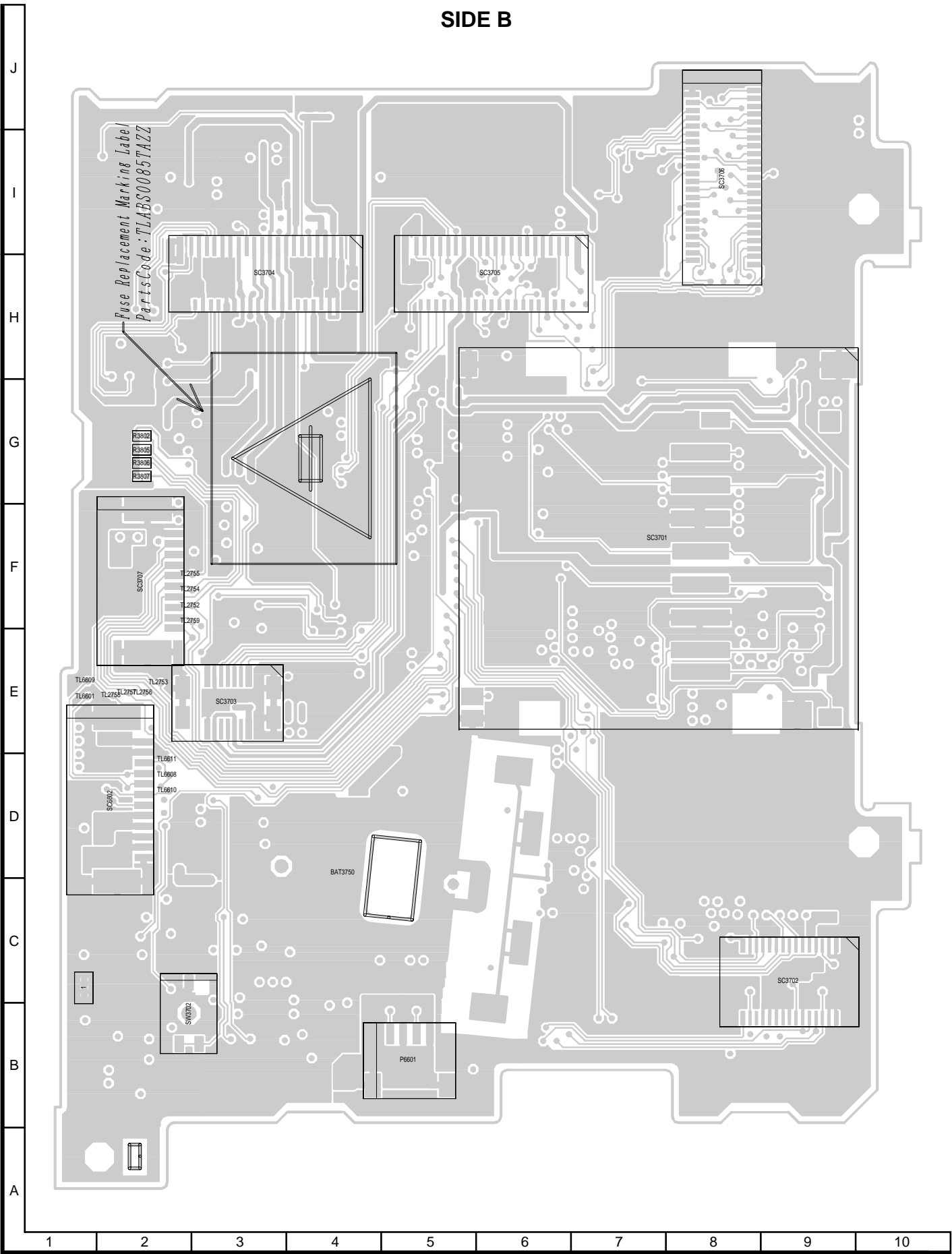
SIDE B



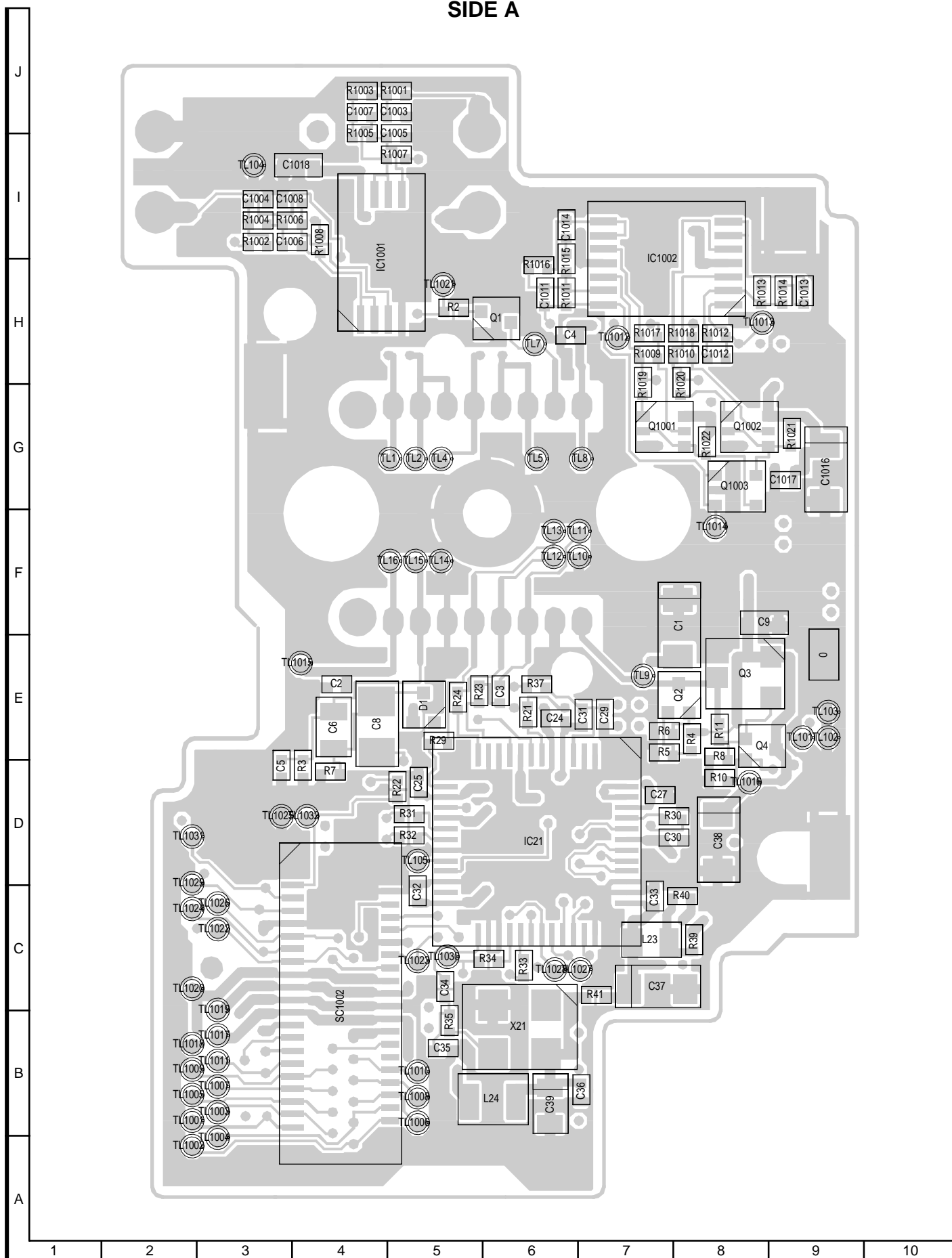
## SIDE A



SIDE B

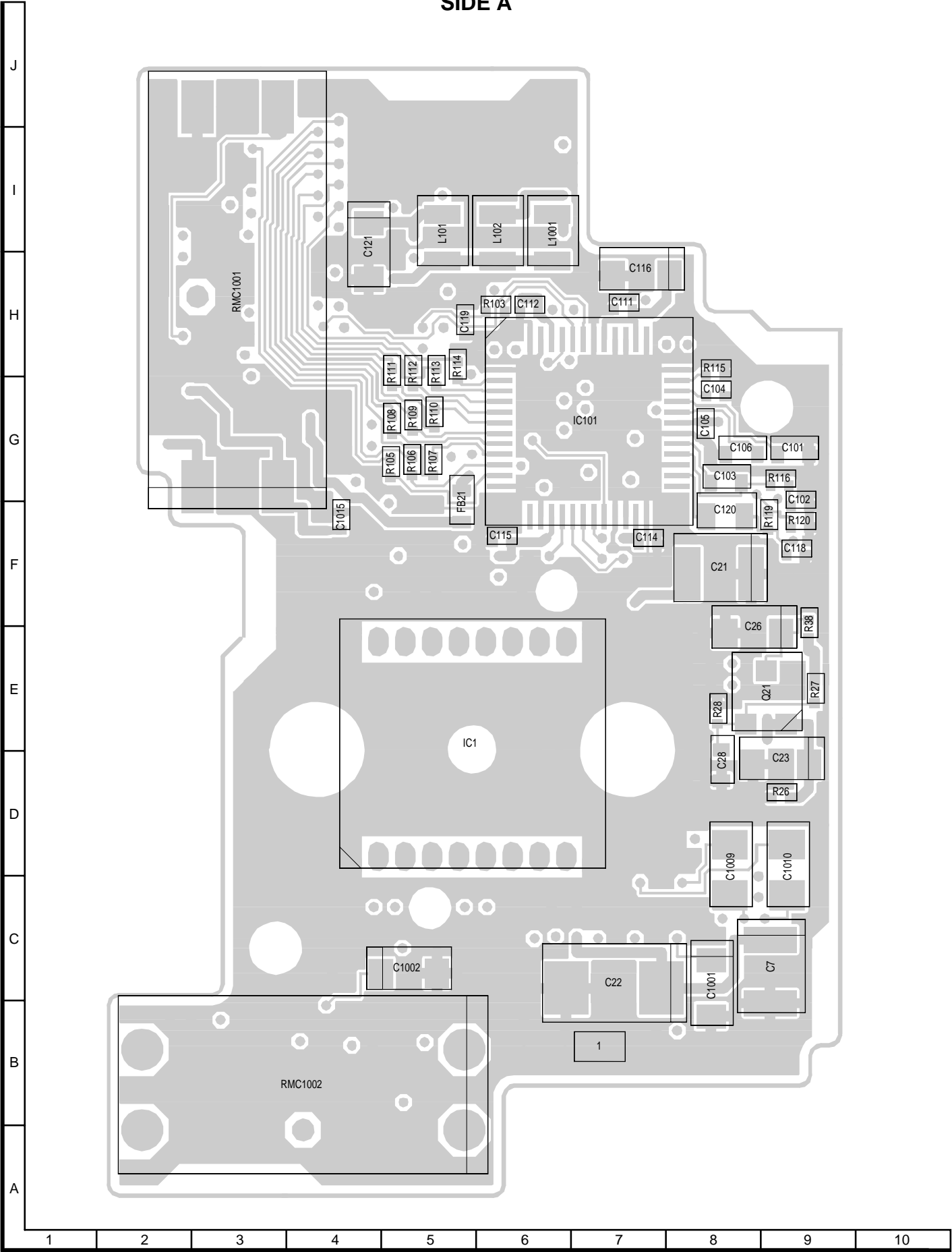


## SIDE A

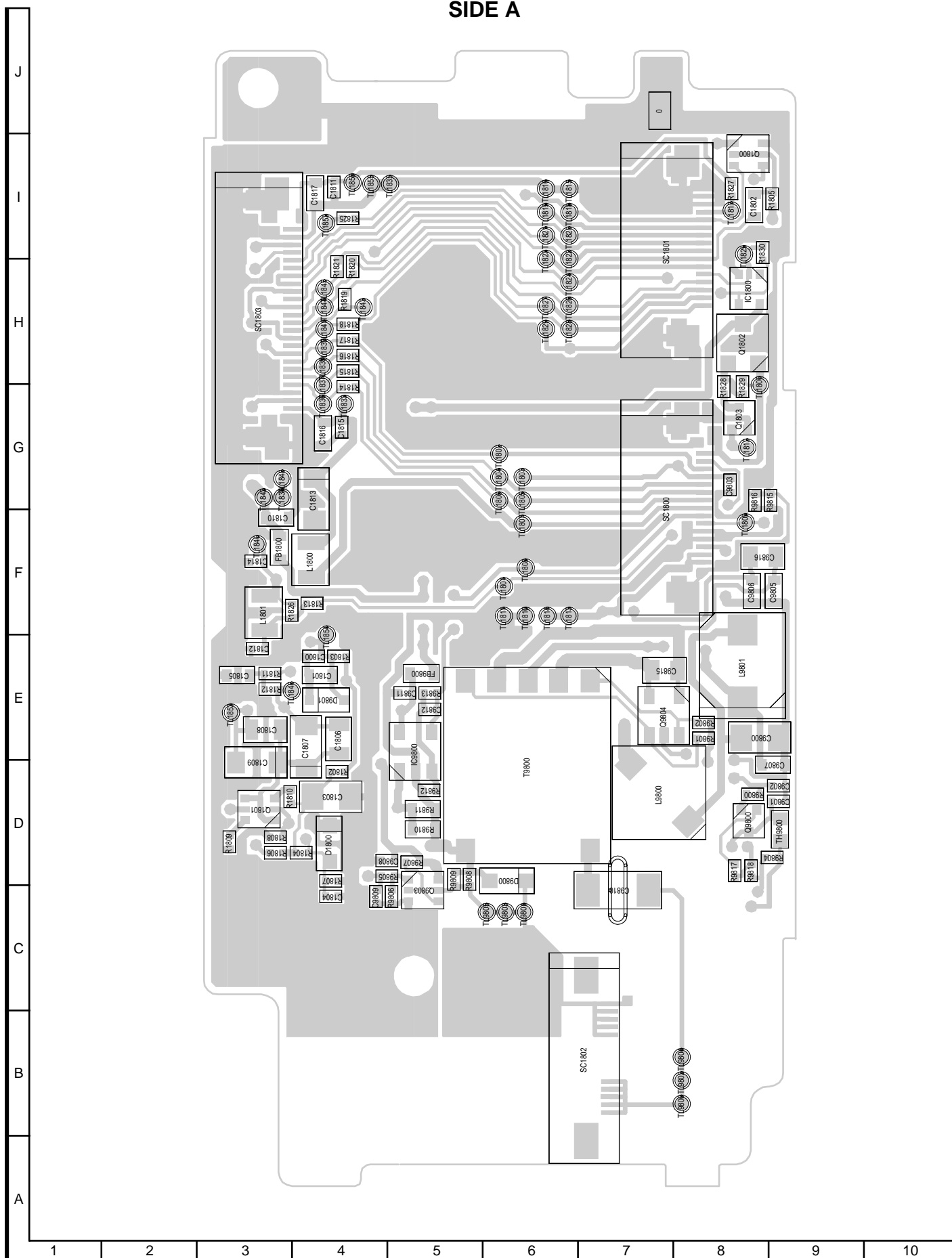


CCD PWB

SIDE A

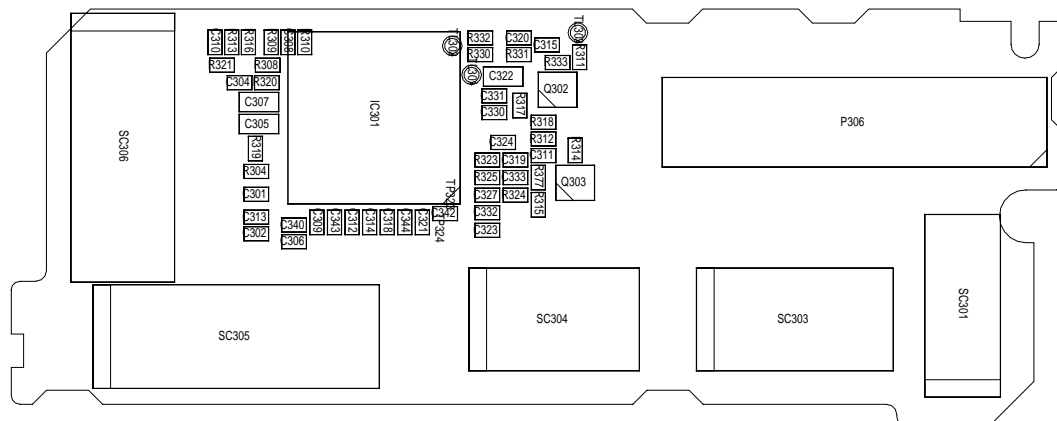


## SIDE A

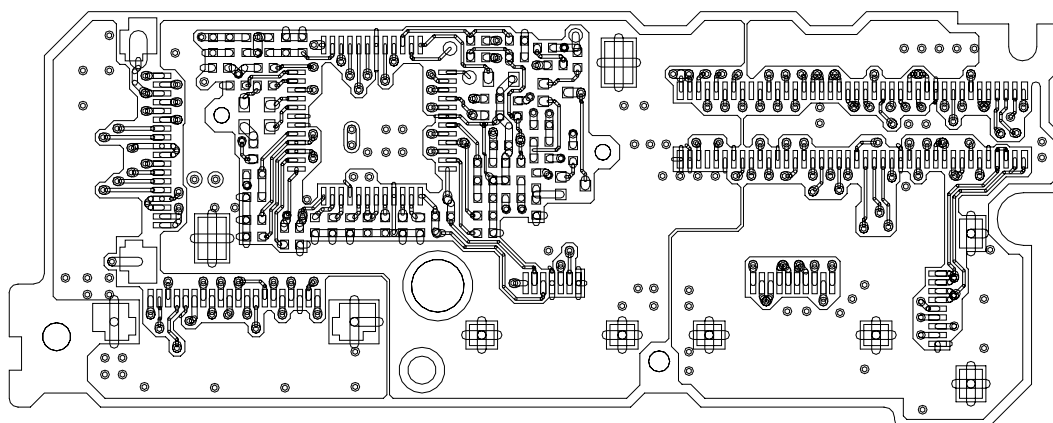


## HEAD AMP PWB

### Component Side SIDE A



## Wiring Side SIDE A







# 17. REPLACEMENT PARTS LIST/ EXPLODED VIEWS

## ELECTRICAL PARTS LIST

Parts marked with "△" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

### " HOW TO ORDER REPLACEMENT PARTS "

★MARK : SPARE PARTS-DELIVERY SECTION:ALL JAPAN

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER	2. REF. NO.
3. PART NO.	4. DESCRIPTION
5. PRICE CODE	

△ MARK: SAFETY RELATED PARTS

PWB ASSEMBLY IS NOT REPLACEMENT ITEM

Ref. No.	Part No.	★	Description	Code
----------	----------	---	-------------	------

### PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)

DUNTKB365QA00	MAIN PWB Unit	—
DUNTK3120QA03	SUB PWB Unit	—
DUNTK3121QA01	CAMERA PWB Unit	—
DUNTK3122QA01	LCD PWB Unit	—
RAMP-0035TAN0	Head Amp PWB Unit	—

Ref. No.	Part No.	★	Description	Code
----------	----------	---	-------------	------

### DUNTKB365QA00 MAIN PWB UNIT

#### INTEGRATED CIRCUITS

△ CP1	VHiCCP2B25/-1	CCP2B25, 1.25A 24V	AD
△ CP2	VHiCCP2B25/-1	CCP2B25, 1.25A 24V	AD
△ CP3	VHiCCP2B25/-1	CCP2B25, 1.25A 24V	AD
△ CP4	VHiCCP2B25/-1	CCP2B25, 1.25A 24V	AD
IC201	RH-iX0785TAZZ	IX0785TA, CAMENG	BL
IC202	RH-iXA312WJZZQ	IXA312WJ, SDRAM	AX
IC405	VHiNJU7015R-1Y	NJU7015R, DC Amp	AF
IC407	RH-iXA193WJZZY	IXA193WJ, Codec Externa	AW
		Memory	
IC408	RH-iXA193WJZZY	IXA193WJ, ECC External	AW
		Memory	
IC452	RH-iX0809TAZZ	IX0809TA, Codec/ECC/	BM
		PCM/CLK. Gen/Dif	
IC501	RH-iX0930TAZZQ	IX0930TA, Camera/Lens	AX
		Micon	
IC502	VHiBR24C32F-1Y	BR24C32F, E <sup>2</sup> PROM	AH
IC503	VHiMB8346BV-1	MB8346BV	AN
IC701	VHiRQ5RW28B-1	RQ5RW28B, Sys 2.8V	AE
		Regulator	
IC702	VHiSN2G04CT-1	SN2G04CT, Inverter	AE
IC703	RH-iX0940TAZZY	IX0940TA, Character	AL
		Generator	
IC704	RH-iXA150WJZZQ	IXA150WJ, Mec/System	AY
		Micon	
IC705	VHiBR2408FV-1Y	BR2408FV, E <sup>2</sup> PROM	AF
IC706	VHiNJM2143R-1	NJM2143R	AE
IC708	VHiPST3636N-1Y	PST3636N, Reset	AD
IC709	VHiSN2G53CT-1	SN2G53CT	AE
IC900	VHiMB3881+-1	MB3881+-	AT
IC901	VHiNJM2143R-1	NJM2143R, 2.8V/2.5V Reg	AE
IC1201	RH-iX0891TAZZQ	IX0891TA, Detail Enhancer	AY
IC1401	VHiNJM2538B-1	NJM2538B, Video Out	AM
IC1431	VHiNJM2535V-1	NJM2535V, Video In SW	AE
IC1602	VHiPCM3008+-1Y	PCM3008+, 16Bit ADC/	AN
		DAC	
IC1701	VHiLB11990W-1	LB11990W, Motor Driver	AR
IC1901	VHiLV4051AT-1	LV4051AT, Power Check	AE
IC2501	VHiUPD16835-1	UPD16835, Lens Driver	AM
IC2502	VHiNJM2902V-1	NJM2902V, Op-Amp	AD
IC2507	VHiNJM2902V-1	NJM2902V, Op-Amp	AD
IC2800	VHiMM1323XV-1	MM1323XV, LCD Interface	AN
IC3401	VHiBH7277KV-1	BH7277KV, EQ/PLL IC	AX
IC3402	VHiTLC2940/-1	TLC2940, VCO IC	AM
IC3403	VHiTCSZ04U/-1	TCSZ04U, INV IC	AE
IC3404	VHiADC08351-1	ADC08351, A/D CONV IC	AN
IC3405	VHiSN2G53CT-1	SN2G53CT, SW IC	AE
IC4401	RH-iX0707TAZZ	IX0707TA, Digital ADC/	BC
		DAC	
IC4461	VHiSN2G53CT-1	SN2G53CT, VCTL SW	AE
IC4471	VHiTC7S04U/-1	TC7S04U, Inverter	AE
IC4472	VHiTC7S08U/-1	TC7S08U, OSD Mute	AE
IC4701	VHiMB88344F-1	MB88344F, D/A Converter	AV
IC8800	VHiAN2536FH-1Q	AN2536FH, VF RGB	AX
		Decoder Controller	

#### TRANSISTORS

Q504	VSRT1N441U/-1	RT1N441U	AB
Q701	VSUN9214///-1	UN9214	AB
Q702	VS2SA1989R/-1	2SA1989R	AB
Q705	VS2SA1989R/-1	2SA1989R	AB
Q900	VSCPH6702++-1	CPH6702++	AD
Q901	VS2SC4213B/-1	2SC4213B	AC
Q902	VSFMMT717/-1	FMMT717	AE
Q903	VSCPH6702++-1	CPH6702++	AD
Q904	VSCPH6702++-1	CPH6702++	AD
Q905	VSFMMT619/-1	FMMT619	AE
Q906	VSCPH6702++-1	CPH6702++	AD
Q907	VSCPH6702++-1	CPH6702++	AD
Q908	VSCPH6702++-1	CPH6702++	AD
Q909	VSNDS355AN/-1	NDS355AN	AE

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
Q910	VSND5355AN/-1		NDS355AN	AE	X4451	RCRSC0167TAZZ		Crystal, CRSC0167TA	AM
Q911	VSCPH6702+-1		CPH6702++	AD	<b>COILS AND TRANSFORMER</b>				
Q1401	VSRT1N441U/-1		RT1N441U	AB	FL403	RFILC0164TAZZ		Filter	AH
Q1402	VS2SC5376B+-1Y		2SC5376B+	AC	FL501	RFILZ0169TAZZY		Filter	AD
Q1403	VS2SC5376B+-1Y		2SC5376B+	AC	FL3401	RCiLF0408TAZZ		Coil, CiLF0408TA	AG
Q1404	VSRN4984///-1		RN4984	AC	FL3402	RCiLF0408TAZZ		Coil, CiLF0408TA	AG
Q1431	VSRN4986///-1		RN4986	AB	FL3403	RCiLF0409TAZZ		Coil, CiLF0409TA	AG
Q1432	VSHN1B04FU/-1		HN1B04FU	AC	L204	VPCEM470M3R7N		Peaking, 47μH	AC
Q1433	VS2SC5383F/-1		2SC5383F	AB	L403	VPMAN100MR50N		Peaking, 10μH	AC
Q1434	VSHN2A01FU/-1		HN2A01FU	AC	L471	VPD9M100J1R7N		Peaking, 10μH	AC
Q1701	VSHN2C01FU/-1		HN2C01FU	AC	L501	VPMAN100MR50N		Peaking, 10μH	AC
Q1905	VSND5332P//1		NDS332P	AD	L701	VPMAN100MR50N		Peaking, 10μH	AC
Q1906	VSRN1N441U/-1		RT1N441U	AB	L900	RCiLP0323TAZZ		Coil, 4.7μH	AD
Q1908	VS2SA1989R/-1		2SA1989R	AB	L901	RCiLP0311TAZZ		Coil, 2.2μH	AE
Q1909	VSRN4984///-1		RN4984	AC	L902	VPCEM2R2MR23N		Peaking, 2.2μH	AC
Q1911	VS2SC4944Y/-1		2SC4944Y	AC	L903	VPCEM2R2MR23N		Peaking, 2.2μH	AC
Q1913	VS2SC5383F/-1		2SC5383F	AB	L904	VPCEM2R2MR23N		Peaking, 2.2μH	AC
Q1914	VSHN2A01FU/-1		HN2A01FU	AC	L905	VPCEM4R7MR40N		Peaking, 4.7μH	AC
Q1920	VS3LP01S+++1Y		3LP01S+++	AC	L906	VPCEM4R7MR40N		Peaking, 4.7μH	AC
Q1921	VSRN4984///-1		RN4984	AC	L907	RCiLP0311TAZZ		Coil, 15μH	AE
Q1936	VSFC117++++1		FC117++++	AD	L908	VPCEM2R2MR23N		Peaking, 2.2μH	AC
Q1938	VSRN1704///-1		RN1704	AC	L909	VPCEM4R7MR40N		Peaking, 4.7μH	AC
Q1940	VSRN4984///-1		RN4984	AC	L910	VPCEM2R2MR23N		Peaking, 2.2μH	AC
Q1941	VSCPH3109//1		CPH3109	AD	L911	RCiLP0311TAZZ		Coil, 15μH	AE
Q1942	VS2SC4944Y/-1		2SC4944Y	AC	L912	VPBAM2R2M090N		Peaking, 2.2μH	AC
Q1943	VSRT1N441U/-1		RT1N441U	AB	L913	VPM6N100MR75N		Peaking, 10μH	AC
Q1944	VSRN4984///-1		RN4984	AC	L914	VPM6N100MR75N		Peaking, 10μH	AC
Q1945	VS2SC5383F/-1		2SC5383F	AB	L915	RCiLP0323TAZZ		Coil, 4.7μH	AD
Q1947	VSRN4990///-1		RN4990	AB	L916	RCiLP0313TAZZ		Coil, 33μH	AE
Q2501	VSRT1N141U/-1		RT1N141U	AB	L917	RCiLP0313TAZZ		Coil, 33μH	AE
Q2502	VSRT1N141U/-1		RT1N141U	AB	L918	RCiLP0311TAZZ		Coil, 15μH	AE
Q2503	VSRN1704///-1		RN1704	AC	L919	VPBAM2R2M090N		Peaking, 2.2μH	AC
Q2504	VS2SC5383F/-1		2SC5383F	AB	L920	VPM6N100MR75N		Peaking, 10μH	AC
Q2507	VS2SA1588Y/-1		2SA1588Y	AC	L921	VPM6N100MR75N		Peaking, 10μH	AC
Q2508	VS2SC5383F/-1		2SC5383F	AB	L922	RCiLP0323TAZZ		Coil, 4.7μH	AD
Q2510	VS2SC5383F/-1		2SC5383F	AB	L923	RCiLP0311TAZZ		Coil, 15μH	AE
Q2800	VS3LN01S///-1		3LN01S	AC	L924	RCiLP0323TAZZ		Coil, 4.7μH	AD
Q3401	VS2SC4738Y/-1		2SC4738Y	AA	L925	VPCEM2R2MR23N		Peaking, 2.2μH	AC
Q3404	VS2SC4738Y/-1		2SC4738Y	AA	L990	RCiLP0323TAZZ		Coil, 4.7μH	AD
Q3406	VSP05534/-1		XP05534	AD	L1402	VPCEM470M3R7N		Peaking, 47μH	AC
Q4431	VSRN4986///-1		RN4986	AB	L1404	VPCEM470M3R7N		Peaking, 47μH	AC
Q4432	VSHN2A01FU/-1		HN2A01FU	AC	L1431	VPCEM470M3R7N		Peaking, 47μH	AC
Q4440	VSHN2A01FU/-1		HN2A01FU	AC	L1601	VPMAN100MR50N		Peaking, 10μH	AC
Q4442	VS2SA1989R/-1		2SA1989R	AB	L1701	VPMAN100MR50N		Peaking, 10μH	AC
Q4443	VSHN1B04FU/-1		HN1B04FU	AC	L1702	VPCEM4R7MR40N		Peaking, 4.7μH	AC
Q4461	VSHN2A01FU/-1		HN2A01FU	AC	L2501	VPCEM100MR70N		Peaking, 10μH	AC
Q4462	VS2SC5383F/-1		2SC5383F	AB	L2502	VPCEM220M1R7NY		Peaking, 22μH	AC
Q4471	VSHN1B04FU/-1		HN1B04FU	AC	L2800	VPCEM470M3R7N		Peaking, 47μH	AC
Q4481	VSHN1B04FU/-1		HN1B04FU	AC	L2801	VPCEM470M3R7N		Peaking, 47μH	AC
Q4482	VSHN1B04FU/-1		HN1B04FU	AC	L3401	RCiLP0276TAZZ		Coil, CiLP0276TA	AC
Q4483	VSRT1N441U/-1		RT1N441U	AB	L3402	VPCEM4R7MR40N		Peaking, 4.7μH	AC
Q7401	VS2SC5383F/-1		2SC5383F	AB	L3404	VPCEM4R7MR40N		Peaking, 4.7μH	AC
Q7402	VSRT1N441U/-1		RT1N441U	AB	L3405	VPCEM4R7MR40N		Peaking, 4.7μH	AC
Q7403	VS2SC5383F/-1		2SC5383F	AB	L4401	VPCEM100MR70N		Peaking, 10μH	AC
Q8800	VSHN1B04FU/-1		HN1B04FU	AC	L4451	RCiLP0353TAZZY		Coil, CiLP0353TA	AC
<b>DIODES</b>					L4481	VPCEM470M3R7N		Peaking, 47μH	AC
D403	VHDHVU362//1		HVU362	AE	L7400	VPMAN100MR50N		Peaking, 10μH	AC
D404	VHDHVU362//1		HVU362	AE	L7800	VPCEM100MR70N		Peaking, 10μH	AC
D471	VHDHVU362//1		HVU362	AE	L7801	VPD9M180J2R4N		Peaking, 18μH	AC
D472	VHDHVU359TR-1		HVU359TR	AE	L8800	VPMAN100MR50N		Peaking, 10μH	AC
D900	RH-EX1394CEZZ		Zener Diode, EX1394CE	AB	L8801	VPMAN100MR50N		Peaking, 10μH	AC
D901	VHDM4A4S159/-1		MA4S159	AC	L8804	VPCEM100MR70N		Peaking, 10μH	AC
D902	VHDM4A4S159/-1		MA4S159	AC	L8805	VPCEM470M3R7N		Peaking, 47μH	AC
D1900	VHDM4A132WK/-1		MA132WK	AA	△ T900	RTRNZ0152TAZZ		Power Transformer	AF
D2501	VHDMC2852//1		MC2852	AB	<b>CAPACITORS</b>				
D2504	VHDMC2852//1		MC2852	AB	C202	VCSAPR0JJ106M	10	6.3V Tantalum	AD
D4451	VHDKV1812K/-1		KV1812K	AD	C203	VCSATA0JJ156M	15	6.3V Tantalum	AC
D4452	VHDKV1812K/-1		KV1812K	AD	C204	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
D7800	VHDHVC359TR-1		HVC359TR	AD	C205	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
<b>PACKAGED CIRCUITS</b>					C208	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
TH3401	VHHT1682J44-1		Thermistor	AC	C209	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
X401	RCRSC0160TAZZ		Crystal, CRSC0160TA	AH	C210	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
X702	RCRSC0183TAZZ		Crystal, CRSC0183TA	AH	C211	VCKYCZ1AF104Z	0.1	10V Ceramic	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C212	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C711	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C213	VCSAPR0JJ106M	10	6.3V Tantalum	AD	C712	VCKYCY0JB105K	1	6.3V Ceramic	AC
C215	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C713	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C222	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C716	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C223	VCCCCZ1HH221J	220p	50V Ceramic	AB	C718	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C224	VCCCCZ1HH221J	220p	50V Ceramic	AB	C719	VCCCCZ1HH220J	22p	50V Ceramic	AB
C226	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C720	VCCCCZ1HH220J	22p	50V Ceramic	AB
C227	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C721	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C228	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C722	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C230	VCSATA0JJ156M	15	6.3V Tantalum	AC	C723	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C231	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C724	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C235	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C725	VCKYCZ1EB682K	6800p	25V Ceramic	AB
C237	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C726	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C238	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C727	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C239	VCCCCZ1HH220J	22p	50V Ceramic	AB	C728	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C240	VCCCCZ1HH6R0D	6p	50V Ceramic	AA	C729	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C401	RC-KZ0083TAZZ	2.2	10V Ceramic	AD	C730	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C402	RC-KZ0083TAZZ	2.2	10V Ceramic	AD	C731	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C403	RC-KZ0083TAZZ	2.2	10V Ceramic	AD	C732	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C404	VCSAPR1AJ475M	4.7	10V Tantalum	AD	C733	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C405	VCKYCZ1AB473K	0.047	10V Ceramic	AB	C734	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C407	RC-KZ0083TAZZ	2.2	10V Ceramic	AD	C735	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C410	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C737	VCKYCZ1EB682K	6800p	25V Ceramic	AB
C411	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C739	VCCCCZ1HH221J	220p	50V Ceramic	AB
C412	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C900	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C413	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C901	RC-KZ0070TAZZ	4.7	16V Ceramic	AD
C414	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C904	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C415	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C905	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C416	VCCCCZ1HH221J	220p	50V Ceramic	AB	C906	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C417	VCSATA0JJ336M	33	6.3V Tantalum	AD	C907	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C418	VCCCCZ1HH100D	10p	50V Ceramic	AB	C908	VCKYCZ1AB473K	0.047	10V Ceramic	AB
C419	VCCCCZ1HH100D	10p	50V Ceramic	AB	C910	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C420	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C911	VCKYCY1CB104K	0.1	16V Ceramic	AB
C421	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C912	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C422	VCCCCZ1HH221J	220p	50V Ceramic	AB	C913	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C423	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C914	VCCCCZ1HH101J	100p	50V Ceramic	AB
C424	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C915	VCKYCY1AB224K	0.22	10V Ceramic	AB
C425	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C916	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C430	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C917	VCKYCZ1HB221K	220p	50V Ceramic	AA
C432	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C918	VCKYCZ1HB221K	220p	50V Ceramic	AA
C435	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C919	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C447	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C920	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C450	RC-KZ0115TAZZ	4.7	6.3V Ceramic	AD	C921	VCKYCY1AF105Z	1	10V Ceramic	AC
C451	VCKYCY0JB105K	1	6.3V Ceramic	AC	C922	VCKYCY1AF105Z	1	10V Ceramic	AC
C452	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C923	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C456	VCSATA0JJ106M	10	6.3V Tantalum	AD	C924	VCKYCZ1HB471K	470p	50V Ceramic	AB
C460	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C926	VCKYCZ1CB223K	0.022	16V Ceramic	AC
C462	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C927	VCKYCZ1HB471K	470p	50V Ceramic	AB
C463	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C928	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C465	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C929	VCKYCY0JB105K	1	6.3V Ceramic	AC
C473	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C930	RC-KZ0070TAZZ	4.7	16V Ceramic	AD
C474	VCKYCZ1AB104K	0.1	10V Ceramic	AB	C931	RC-KZ0075TAZZ	2.2	16V Ceramic	AC
C475	VCCCCZ1HH221J	220p	50V Ceramic	AB	C932	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C476	VCCCCZ1HH221J	220p	50V Ceramic	AB	C933	RC-KZ0044TAZZ	4.7	10V Ceramic	AD
C501	VCKYCY0JB105K	1	6.3V Ceramic	AC	C934	RC-KZ0071TAZZ	2.2	6.3V Ceramic	AD
C502	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C935	VCKYTV1AB105K	1	10V Ceramic	AD
C503	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C936	VCSATE1AJ476M	47	10V Tantalum	AD
C504	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C937	RC-KZ0070TAZZ	4.7	16V Ceramic	AD
C506	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C938	RC-KZ0074TAZZ	10	6.3V Ceramic	AF
C507	VCKYCZ1AF104Z	0.1	10V Ceramic	AB	C939	VCKYTV1AB105K	1	10V Ceramic	AD
C508	VCSATA1AJ106M	10	10V Tantalum	AC	C941	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C509	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C943	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C511	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C946	VCKYTV1AB105K	1	10V Ceramic	AD
C512	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C948	VCSAPR0JJ106M	10	6.3V Tantalum	AD
C513	VCCCCZ1HH221J	220p	50V Ceramic	AB	C949	VCKYTV1AB105K	1	10V Ceramic	AD
C514	VCCCCZ1HH221J	220p	50V Ceramic	AB	C950	VCKYTV1AB105K	1	10V Ceramic	AD
C515	VCCCCZ1HH221J	220p	50V Ceramic	AB	C951	VCKYTV1AB105K	1	10V Ceramic	AD
C516	VCCCCZ1HH221J	220p	50V Ceramic	AB	C952	RC-KZ0071TAZZ	2.2	6.3V Ceramic	AD
C701	VCKYCY1AF105Z	1	10V Ceramic	AC	C953	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C702	VCKYCY0JF105Z	1	6.3V Ceramic	AB	C954	VCKYCZ1HB102K	1000p	50V Ceramic	AB
C704	VCKYCY0JB105K	1	6.3V Ceramic	AC	C955	RC-KZ0075TAZZ	2.2	16V Ceramic	AC
C705	VCKYCZ1CB103K	0.01	16V Ceramic	AB	C956	RC-KZ0044TAZZ	4.7	10V Ceramic	AD
C706	VCSAPR0JJ106M	10	6.3V Tantalum	AD	C957	VCKYTV1AB105K	1	10V Ceramic	AD
C707	VCCCCZ1HH221J	220p	50V Ceramic	AB	C959	VCKYTV1EB104K	0.1	25V Ceramic	AB
C709	VCKYCZ1HB102K	1000p	50V Ceramic	AB	C960	RC-KZ0070TAZZ	4.7	16V Ceramic	AD

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C961	VCKY CZ1HB222K	2200p	50V Ceramic	AB	C1717	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C962	RC-KZ0072TAZZ	1	25V Ceramic	AC	C1718	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C963	RC-KZ0072TAZZ	1	25V Ceramic	AC	C1719	VCKY CY0JF105Z	1	6.3V Ceramic	AB
C964	VCKY TV1CF105Z	1	16V Ceramic	AB	C1720	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C965	VCKY TV1EB104K	0.1	25V Ceramic	AB	C1721	VCKY CY0JF105Z	1	6.3V Ceramic	AB
C966	VCKY CZ1HB102K	1000p	50V Ceramic	AB	C1722	VCKY CZ1AB473K	0.047	10V Ceramic	AB
C967	VCKY TV1AB105K	1	10V Ceramic	AD	C1723	VCKY CZ1EB472K	4700p	25V Ceramic	AB
C968	RC-KZ0072TAZZ	1	25V Ceramic	AC	C1724	VCKY CY1AF105Z	1	10V Ceramic	AC
C969	VCKY TV1CF105Z	1	16V Ceramic	AB	C1725	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C970	VCKY CZ1HB102K	1000p	50V Ceramic	AB	C1726	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C971	VCKY CZ1HB102K	1000p	50V Ceramic	AB	C1727	VCCCCZ1HH101J	100p	50V Ceramic	AB
C972	RC-KZ0070TAZZ	4.7	16V Ceramic	AD	C1728	VCKY CY1AF105Z	1	10V Ceramic	AC
C973	RC-KZ0070TAZZ	4.7	16V Ceramic	AD	C1906	VCKY CZ1AB104K	0.1	10V Ceramic	AB
C974	RC-KZ0070TAZZ	4.7	16V Ceramic	AD	C1911	VCKY TV1EB104K	0.1	25V Ceramic	AB
C980	VCKY CZ1HB102K	1000p	50V Ceramic	AB	C1921	VCSATA1CJ106M	10	16V Tantalum	AD
C981	RC-KZ0075TAZZ	2.2	16V Ceramic	AC	C1922	VCKY TV1EB104K	0.1	25V Ceramic	AB
C982	RC-KZ0044TAZZ	4.7	10V Ceramic	AD	C1980	VCKY CZ1AB104K	0.1	10V Ceramic	AB
C983	VCKY TV1AB105K	1	10V Ceramic	AD	C1993	VCSATA1EJ105M	1	25V Tantalum	AC
C990	RC-KZ0075TAZZ	2.2	16V Ceramic	AC	C2501	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C991	RC-KZ0044TAZZ	4.7	10V Ceramic	AD	C2502	VCCCCZ1HH330J	33p	50V Ceramic	AB
C992	VCKY CZ1HB102K	1000p	50V Ceramic	AB	C2503	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C993	VCKY CY1AB224K	0.22	10V Ceramic	AB	C2504	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C1201	VCKY CZ1AB104K	0.1	10V Ceramic	AB	C2505	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C1202	VCCCCZ1HH221J	220p	50V Ceramic	AB	C2506	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C1203	VCCCCZ1HH221J	220p	50V Ceramic	AB	C2507	VCSATA1CJ106M	10	16V Tantalum	AD
C1402	VCSATA1AJ226M	22	10V Tantalum	AD	C2508	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C1404	VCKY CZ1CB103K	0.01	16V Ceramic	AB	C2509	VCSAPR0JJ106M	10	6.3V Tantalum	AD
C1405	VCSATA0JJ336M	33	6.3V Tantalum	AD	C2510	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C1406	VCSATE0JJ107M	100	6.3V Tantalum	AE	C2511	VCSATA1AJ106M	10	10V Tantalum	AC
C1407	VCSATA0JJ156M	15	6.3V Tantalum	AC	C2512	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C1408	VCKY CY0JF105Z	1	6.3V Ceramic	AB	C2513	VCKY CY1AB224K	0.22	10V Ceramic	AB
C1409	VCKY CZ1CB103K	0.01	16V Ceramic	AB	C2515	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C1410	VCKY CZ1CB103K	0.01	16V Ceramic	AB	C2516	VCKY CZ1HB102K	1000p	50V Ceramic	AB
C1411	VCSATE0JJ107M	100	6.3V Tantalum	AE	C2517	VCKY CZ1AB104K	0.1	10V Ceramic	AB
C1412	VCSATA0JJ156M	15	6.3V Tantalum	AC	C2518	VCCCCZ1HH151J	150p	50V Ceramic	AB
C1413	VCSAPR0JJ106M	10	6.3V Tantalum	AD	C2520	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C1414	VCKY CZ1CB103K	0.01	16V Ceramic	AB	C2530	VCCCCZ1HH101J	100p	50V Ceramic	AB
C1415	VCSATA1AJ226M	22	10V Tantalum	AD	C2531	VCCCCZ1HH101J	100p	50V Ceramic	AB
C1416	VCKY CZ1CB103K	0.01	16V Ceramic	AB	C2542	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C1417	VCKY CZ1AF104Z	0.1	10V Ceramic	AB	C2544	VCKY CY1AB224K	0.22	10V Ceramic	AB
C1418	VCKY CZ1CB103K	0.01	16V Ceramic	AB	C2546	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C1431	VCSATA1AJ226M	22	10V Tantalum	AD	C2548	VCKY CZ1HB102K	1000p	50V Ceramic	AB
C1432	VCKY CZ1CB103K	0.01	16V Ceramic	AB	C2549	VCKY CZ1AB104K	0.1	10V Ceramic	AB
C1433	VCCCCZ1HH150J	15p	50V Ceramic	AB	C2551	VCCCCZ1HH151J	150p	50V Ceramic	AB
C1434	VCCCCZ1HH680J	68p	50V Ceramic	AB	C2552	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C1435	VCKY CZ1CB103K	0.01	16V Ceramic	AB	C2555	VCCCCZ1HH221J	220p	50V Ceramic	AB
C1436	VCCCCZ1HH150J	15p	50V Ceramic	AB	C2556	VCCCCZ1HH221J	220p	50V Ceramic	AB
C1437	VCCCCZ1HH680J	68p	50V Ceramic	AB	C2800	VCKY TV1AB105K	1	10V Ceramic	AD
C1438	VCKY CZ1AF104Z	0.1	10V Ceramic	AB	C2801	VCSATA1AJ106M	10	10V Tantalum	AC
C1439	VCKY CY0JF105Z	1	6.3V Ceramic	AB	C2802	VCKY CY0JB105K	1	6.3V Ceramic	AC
C1440	VCKY CZ1CB103K	0.01	16V Ceramic	AB	C2803	VCKY CY0JB105K	1	6.3V Ceramic	AC
C1441	VCKY CY0JF105Z	1	6.3V Ceramic	AB	C2804	VCKY CY0JB105K	1	6.3V Ceramic	AC
C1603	VCKY CY0JB105K	1	6.3V Ceramic	AC	C2805	VCKY CY0JB105K	1	6.3V Ceramic	AC
C1604	VCKY CY0JB105K	1	6.3V Ceramic	AC	C2807	VCKY CZ1HF103Z	0.01	50V Ceramic	AB
C1605	RC-KZ0071TAZZ	2.2	6.3V Ceramic	AD	C2808	VCCCCZ1HH560J	56p	50V Ceramic	AB
C1608	VCSAPR0JJ106M	10	6.3V Tantalum	AD	C3401	VCCCCZ1HH220J	22p	50V Ceramic	AB
C1610	VCKY CZ1AF104Z	0.1	10V Ceramic	AB	C3402	VCCCCZ1HH120J	12p	50V Ceramic	AB
C1611	VCKY CY1AB474K	0.47	10V Ceramic	AC	C3403	VCCCCZ1HH390J	39p	50V Ceramic	AB
C1617	VCKY CY1AB474K	0.47	10V Ceramic	AC	C3405	VCCCCZ1HH820J	82p	50V Ceramic	AB
C1701	VCKY CZ1CB223K	0.022	16V Ceramic	AC	C3406	VCKY CY0JB105K	1	6.3V Ceramic	AC
C1702	VCKY CZ1CB223K	0.022	16V Ceramic	AC	C3408	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C1703	VCKY TV1AB105K	1	10V Ceramic	AD	C3409	VCKY CZ1HB471K	470p	50V Ceramic	AB
C1704	VCKY CY1AF105Z	1	10V Ceramic	AC	C3410	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C1705	VCKY CZ1AB104K	0.1	10V Ceramic	AB	C3411	VCKY CZ1HB471K	470p	50V Ceramic	AB
C1706	VCKY CZ1AF104Z	0.1	10V Ceramic	AB	C3412	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C1707	VCKY CZ1AF104Z	0.1	10V Ceramic	AB	C3413	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C1708	RC-KZ0083TAZZ	2.2	10V Ceramic	AD	C3414	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C1709	VCKY CZ1AF104Z	0.1	10V Ceramic	AB	C3415	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C1710	VCKY CZ1AF104Z	0.1	10V Ceramic	AB	C3416	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C1711	VCKY CY0JB105K	1	6.3V Ceramic	AC	C3417	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C1712	VCKY CZ1AF104Z	0.1	10V Ceramic	AB	C3418	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C1713	VCKY CZ1HB102K	1000p	50V Ceramic	AB	C3419	VCKY CZ1AF104Z	0.1	10V Ceramic	AB
C1714	VCKY CZ1AF104Z	0.1	10V Ceramic	AB	C3420	VCCCCZ1HH100D	10p	50V Ceramic	AB
C1715	VCKY CZ1HB102K	1000p	50V Ceramic	AB	C3421	VCCCCZ1HH121J	120p	50V Ceramic	AB
C1716	VCKY CZ1HB102K	1000p	50V Ceramic	AB	C3423	VCCCCZ1HH121J	120p	50V Ceramic	AB

Ref. No.	Part No.	★	Description			Code	Ref. No.	Part No.	★	Description			Code
C3424	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C7401	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD		
C3425	VCSATA0JJ336M	33	6.3V	Tantalum	AD	C7402	VCKY CZ1CB103K	0.01	16V	Ceramic	AB		
C3426	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C7403	VCKY CZ1CB103K	0.01	16V	Ceramic	AB		
C3428	VCKY TV1CB105K	1	16V	Ceramic	AC	C7404	VCKY CZ1EB472K	4700p	25V	Ceramic	AB		
C3429	VCKY CZ1HB102K	1000p	50V	Ceramic	AB	C7413	VCKY CZ1HB221K	220p	50V	Ceramic	AA		
C3430	VCKY CZ1AF104Z	0.1	10V	Ceramic	AB	C7414	VCCCCZ1HH330J	33p	50V	Ceramic	AB		
C3431	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C7417	VCKY CY0JB105K	1	6.3V	Ceramic	AC		
C3432	VCKY CZ1AF104Z	0.1	10V	Ceramic	AB	C7800	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD		
C3433	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C7801	VCKY CZ1CB103K	0.01	16V	Ceramic	AB		
C3434	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C7802	VCKY CZ1CB103K	0.01	16V	Ceramic	AB		
C3436	VCSATA0JJ336M	33	6.3V	Tantalum	AD	C7803	VCKY CZ1CB103K	0.01	16V	Ceramic	AB		
C3442	VCCCCZ1HH220J	22p	50V	Ceramic	AB	C7813	VCKY CZ1CB103K	0.01	16V	Ceramic	AB		
C3443	VCCCCZ1HH470J	47p	50V	Ceramic	AB	C7815	VCKY CZ1HB102K	1000p	50V	Ceramic	AB		
C3444	VCKY CZ1AF104Z	0.1	10V	Ceramic	AB	C7816	VCCCCZ1HH470J	47p	50V	Ceramic	AB		
C3452	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C7837	VCKY CZ1CB103K	0.01	16V	Ceramic	AB		
C3454	VCSAPR0JJ106M	10	6.3V	Tantalum	AD	C7842	VCKY CZ1HB102K	1000p	50V	Ceramic	AB		
C3455	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C7843	RC-KZ0101TAZZ	3.3	6.3V	Ceramic	AD		
C3456	VCSAPR0JJ106M	10	6.3V	Tantalum	AD	C7844	VCKY CZ1HB332K	3300p	50V	Ceramic	AA		
C3457	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C8800	VCKY CY0JB105K	1	6.3V	Ceramic	AC		
C3458	VCKY CZ1AF104Z	0.1	10V	Ceramic	AB	C8801	VCSATA0JJ336M	33	6.3V	Tantalum	AD		
C3462	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C8802	VCKY CZ1CB103K	0.01	16V	Ceramic	AB		
C3467	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C8804	VCKY CZ1AB104K	0.1	10V	Ceramic	AB		
C3470	VCCCCZ1HH5R0C	5p	50V	Ceramic	AC	C8805	VCKY CZ1AB104K	0.1	10V	Ceramic	AB		
C3471	VCKY CZ1AF104Z	0.1	10V	Ceramic	AB	C8806	VCKY CZ1AB104K	0.1	10V	Ceramic	AB		
C3473	VCSATA0YJ336M	33		Tantalum	AD	C8808	VCKY TV1CB105K	1	16V	Ceramic	AC		
C3474	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C8809	VCKY CZ1CB103K	0.01	16V	Ceramic	AB		
C3475	VCKY CZ1AF104Z	0.1	10V	Ceramic	AB	C8815	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD		
C3476	VCKY CZ1AF104Z	0.1	10V	Ceramic	AB	C8816	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD		
C3477	VCKY CZ1AF104Z	0.1	10V	Ceramic	AB	C8817	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD		
C3479	VCKY CZ1AF104Z	0.1	10V	Ceramic	AB	C8818	VCKY CZ1CB103K	0.01	16V	Ceramic	AB		
C3481	VCCCCZ1HH100D	10p	50V	Ceramic	AB	C8824	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD		
C4401	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD	C8825	VCKY CZ1HB152K	1500p	50V	Ceramic	AB		
C4402	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD	C8829	VCKY CZ1CB103K	0.01	16V	Ceramic	AB		
C4403	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD	C8831	RC-KZ0055TAZZ	3.3	16V	Ceramic	AD		
C4404	VCSAPR0JJ106M	10	6.3V	Tantalum	AD	C8832	VCKY TV1CB105K	1	16V	Ceramic	AC		
C4405	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C8861	VCSAPR1AJ475M	4.7	10V	Tantalum	AD		
C4407	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C8862	VCKY CZ1HB681K	680p	50V	Ceramic	AB		
C4408	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	C8863	VCSAPR0JJ106M	10	6.3V	Tantalum	AD		
C4409	VCKY CZ1CB103K	0.01	16V	Ceramic	AB								
C4410	VCKY CZ1AB104K	0.1	10V	Ceramic	AB								
C4411	VCKY CZ1CB103K	0.01	16V	Ceramic	AB								
C4412	VCCCCZ1HH221J	220p	50V	Ceramic	AB	R201	VRK-SB1FF473J	47k	0.0315W		AB		
C4413	VCKY CZ1CB103K	0.01	16V	Ceramic	AB								
C4414	VCCCCZ1HH221J	220p	50V	Ceramic	AB	R202	VRK-SB1FF473J	47k	0.0315W		AB		
C4417	VCKY CZ1CB103K	0.01	16V	Ceramic	AB								
C4419	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	R203	VRK-SB1FF473J	47k	0.0315W		AB		
C4420	VCKY CZ1CB103K	0.01	16V	Ceramic	AB								
C4422	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	R204	VRK-SA1JF473J	47k	1/16W		AC		
C4423	VCKY CZ1CB103K	0.01	16V	Ceramic	AB								
C4424	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	R205	VRS-CZ1JF000J	0	1/16W Metal Oxide		AA		
C4425	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	R206	VRK-SA1JF102J	1k	1/16W		AB		
C4427	VCKY CZ1CB103K	0.01	16V	Ceramic	AB								
C4429	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	R207	VRK-SB1FF102J	1k	0.0315W		AC		
C4431	VCKY CZ1CB103K	0.01	16V	Ceramic	AB								
C4432	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	R208	VRK-SB1FF102J	1k	0.0315W		AC		
C4435	VCSAPR0JJ106M	10	6.3V	Tantalum	AD								
C4436	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	R209	VRS-CZ1JF000J	0	1/16W Metal Oxide		AA		
C4440	VCSAPR0JJ106M	10	6.3V	Tantalum	AD	R213	VRK-SB1FF102J	1k	0.0315W		AC		
C4441	VCKY CZ1CB103K	0.01	16V	Ceramic	AB								
C4451	VCCCCZ1HH330J	33p	50V	Ceramic	AB	R235	VRS-CZ1JF333J	33k	1/16W Metal Oxide		AA		
C4454	VCCCCZ1HH330J	33p	50V	Ceramic	AB	R242	VRS-CZ1JF000J	0	1/16W Metal Oxide		AA		
C4461	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD	R243	VRS-CZ1JF000J	0	1/16W Metal Oxide		AA		
C4462	VCKY CZ1EB682K	6800p	25V	Ceramic	AB	R244	VRS-CZ1JF000J	0	1/16W Metal Oxide		AA		
C4463	VCKY CZ1EB682K	6800p	25V	Ceramic	AB	R251	VRS-CZ1JF103J	10k	1/16W Metal Oxide		AA		
C4464	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	R401	VRS-CZ1JF000J	0	1/16W Metal Oxide		AA		
C4465	VCKY CZ1AB104K	0.1	10V	Ceramic	AB	R402	VRS-CZ1JF000J	0	1/16W Metal Oxide		AA		
C4466	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	R403	VRS-CZ1JF000J	0	1/16W Metal Oxide		AA		
C4481	VCSAPR0JJ106M	10	6.3V	Tantalum	AD	R404	VRS-CZ1JF102J	1k	1/16W Metal Oxide		AA		
C4482	VCKY CZ1CB103K	0.01	16V	Ceramic	AB	R405	VRS-CZ1JF000J	0	1/16W Metal Oxide		AA		
C4483	VCSAPR1AJ475M	4.7	10V	Tantalum	AD	R406	VRS-CZ1JF101J	100	1/16W Metal Oxide		AA		
C4484	VCKY CY0JB105K	1	6.3V	Ceramic	AC	R407	VRS-CZ1JF153J	15k	1/16W Metal Oxide		AA		
C4485	VCKY CZ1AF104Z	0.1	10V	Ceramic	AB	R409	VRS-CZ1JF103J	10k	1/16W Metal Oxide		AA		
C4701	VCKY CZ1AF104Z	0.1	10V	Ceramic	AB	R410	VRS-CZ1JF103J	10k	1/16W Metal Oxide		AA		
C4702	VCKY CZ1AF104Z	0.1	10V	Ceramic	AB	R411	VRS-CZ1JF154J	150k	1/16W Metal Oxide		AA		
C7400	RC-KZ0083TAZZ	2.2	10V	Ceramic	AD	R412	VRS-CZ1JF334J	330k	1/16W Metal Oxide		AA		
						R413	VRS-CZ1JF000J	0	1/16W Metal Oxide		AA		

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R414	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R752	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R416	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA	R753	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R418	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA	R754	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R428	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R755	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA
R431	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R756	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R432	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R757	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R436	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA	R758	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R437	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA	R759	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA
R438	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R761	VRK-SB1FF102J	1k	0.0315W	AC
R440	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA				Metal Composition	
R441	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA	R762	VRK-SB1FF104J	100k	0.0315W	AD
R442	VRS-CZ1JF114J	110k	1/16W Metal Oxide	AB				Metal Composition	
R443	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R763	VRK-SB1FF102J	1k	0.0315W	AC
R446	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA				Metal Composition	
R462	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R764	VRK-SB1FF104J	100k	0.0315W	AD
R463	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA				Metal Composition	
R467	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R769	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R468	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R770	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R471	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	R771	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R477	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA	R772	VRS-CZ1JF474J	470k	1/16W Metal Oxide	AA
R478	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA	R774	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R480	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R776	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R504	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R779	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R505	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA	R780	VRS-CY1JF000J	0	1/16W Metal Oxide	AA
R506	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA	R781	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA
R509	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R782	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R514	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R795	VRS-CZ1JF683D	68k	1/16W Metal Oxide	AB
R516	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R796	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R517	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R797	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R518	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R798	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R519	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R900	VRS-CZ1JF104D	100k	1/16W Metal Oxide	AB
R520	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R901	VRS-CZ1JF433D	43k	1/16W Metal Oxide	AA
R521	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R902	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R522	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R903	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R523	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R904	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA
R526	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R905	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R531	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R906	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R532	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA	R907	VRS-CZ1JF822J	8.2k	1/16W Metal Oxide	AA
R533	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R908	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R535	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R909	VRS-CZ1JF562D	5.6k	1/16W Metal Oxide	AB
R536	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R910	VRS-CZ1JF272D	2.7k	1/16W Metal Oxide	AB
R537	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA	R912	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R703	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA	R913	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R704	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA	R914	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R706	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R917	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA
R707	VRS-CZ1JF683D	68k	1/16W Metal Oxide	AB	R918	VRS-CZ1JF472D	4.7k	1/16W Metal Oxide	AB
R708	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R919	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R710	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R920	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R711	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R922	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R713	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R923	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R716	VRS-CZ1JF272J	2.7k	1/16W Metal Oxide	AA	R924	VRS-CZ1JF113D	11k	1/16W Metal Oxide	AA
R718	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R925	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R719	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R926	VRS-CZ1JF333D	33k	1/16W Metal Oxide	AB
R720	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R927	VRS-CZ1JF683D	68k	1/16W Metal Oxide	AB
R723	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R928	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R724	VRS-CZ1JF823D	82k	1/16W Metal Oxide	AB	R929	VRS-CZ1JF823D	82k	1/16W Metal Oxide	AB
R725	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R930	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R729	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA	R931	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R730	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R932	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R732	VRS-CZ1JF474D	470k	1/16W Metal Oxide	AA	R933	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA
R733	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R934	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R734	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R935	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA
R735	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA	R936	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R736	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R937	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R737	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA	R938	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R738	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R939	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R739	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R940	VRS-CZ1JF153D	15k	1/16W Metal Oxide	AB
R740	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R941	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R741	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R942	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R744	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA	R943	VRS-CZ1JF303D	30k	1/16W Metal Oxide	AA
R746	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R946	VRS-CZ1JF163D	16k	1/16W Metal Oxide	AA
R747	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA	R947	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R749	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R948	VRS-CZ1JF473D	47k	1/16W Metal Oxide	AB
R750	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R949	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA
R751	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R950	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R951	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1602	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R952	VRS-CZ1JF223D	22k	1/16W Metal Oxide	AB	R1701	VRK-SA1JF100J	10	1/16W Metal Composition	AB
R953	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R1702	VRK-SA1JF182J	1.8k	1/16W Metal Composition	AC
R954	VRS-CZ1JF333D	33k	1/16W Metal Oxide	AB	R1703	VRK-SA1JF182J	1.8k	1/16W Metal Composition	AC
R956	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1704	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R957	VRS-CZ1JF333D	33k	1/16W Metal Oxide	AB	R1705	VRS-CZ1JF154J	150k	1/16W Metal Oxide	AA
R958	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R1706	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R959	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB	R1707	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R960	VRS-CZ1JF392D	3.9k	1/16W Metal Oxide	AB	R1708	VRS-CZ1JF1R0J	1	1/16W Metal Oxide	AA
R962	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R1709	VRS-CZ1JF1R0J	1	1/16W Metal Oxide	AA
R964	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1710	VRS-CZ1JF1R0J	1	1/16W Metal Oxide	AA
R965	VRS-CZ1JF122D	1.2k	1/16W Metal Oxide	AB	R1711	VRS-CZ1JF1R0J	1	1/16W Metal Oxide	AA
R966	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1712	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R968	VRS-CZ1JF222D	2.2k	1/16W Metal Oxide	AA	R1713	VRS-CZ1JF331J	330	1/16W Metal Oxide	AA
R969	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1714	VRS-CZ1JF621J	620	1/16W Metal Oxide	AA
R970	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1715	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R972	VRS-CZ1JF133D	13k	1/16W Metal Oxide	AA	R1716	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R973	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA	R1717	VRS-CZ1JF330J	33	1/16W Metal Oxide	AA
R974	VRS-CZ1JF102D	1k	1/16W Metal Oxide	AA	R1718	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R975	VRS-CZ1JF331J	330	1/16W Metal Oxide	AA	R1719	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA
R977	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R1720	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R979	VRS-CZ1JF104D	100k	1/16W Metal Oxide	AB	R1721	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R980	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R1722	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R982	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1723	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R983	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1724	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R984	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1726	VRS-CZ1JF330J	33	1/16W Metal Oxide	AA
R987	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1901	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R988	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1902	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R989	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1903	VRS-CZ1JF473D	47k	1/16W Metal Oxide	AB
R990	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1904	VRS-CZ1JF272D	2.7k	1/16W Metal Oxide	AB
R991	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1905	VRS-CZ1JF133D	13k	1/16W Metal Oxide	AA
R992	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1912	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R993	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1913	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R994	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1914	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R995	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1917	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R996	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1925	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R997	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1927	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
R999	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1929	VRS-CZ1JF393D	39k	1/16W Metal Oxide	AB
R1201	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1930	VRS-CZ1JF182D	1.8k	1/16W Metal Oxide	AB
R1202	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1931	VRS-CZ1JF822D	8.2k	1/16W Metal Oxide	AA
R1401	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1934	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R1402	VRS-CZ1JF470J	47	1/16W Metal Oxide	AA	R1935	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R1403	VRS-CZ1JF470J	47	1/16W Metal Oxide	AA	R1936	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R1404	VRS-CZ1JF270J	27	1/16W Metal Oxide	AA	R1937	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R1408	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R1940	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R1413	VRS-CZ1JF470J	47	1/16W Metal Oxide	AA	R1941	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R1414	VRS-CZ1JF270J	27	1/16W Metal Oxide	AA	R1942	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R1415	VRS-CZ1JF225J	2.2M	1/16W Metal Oxide	AA	R1943	VRS-CZ1JF333D	33k	1/16W Metal Oxide	AB
R1419	VRS-CZ1JF270J	27	1/16W Metal Oxide	AA	R1944	VRS-CZ1JF822D	8.2k	1/16W Metal Oxide	AA
R1422	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R1945	VRS-CZ1JF183D	18k	1/16W Metal Oxide	AB
R1423	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R1948	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1424	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	R1949	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1431	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA	R1950	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1432	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA	R1951	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1433	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA	R1956	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R1434	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA	R1957	VRS-CZ1JF272D	2.7k	1/16W Metal Oxide	AB
R1435	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA	R1958	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1436	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA	R1959	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R1437	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R1961	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1438	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA	R1968	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA
R1439	VRS-CZ1JF272J	2.7k	1/16W Metal Oxide	AA	R1969	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R1440	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA	R1980	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA
R1441	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA	R1981	VRS-CZ1JF184J	180k	1/16W Metal Oxide	AA
R1442	VRS-CZ1JF750J	75	1/16W Metal Oxide	AA	R1982	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R1452	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA	R1983	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA
R1454	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA	R1984	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R1455	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R1985	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R1456	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R1986	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA
R1462	VRS-CZ1JF104D	100k	1/16W Metal Oxide	AB	R1989	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R1471	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1990	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R1473	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1991	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R1474	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R1992	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R1475	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA					
R1476	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA					
R1477	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA					



Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R2501	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R3402	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2502	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R3403	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R2503	VRS-CZ1JF4R7J	4.7	1/16W Metal Oxide	AA	R3404	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA
R2504	VRS-CZ1JF4R7J	4.7	1/16W Metal Oxide	AA	R3406	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA
R2505	VRS-CZ1JF4R7J	4.7	1/16W Metal Oxide	AA	R3407	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA
R2506	VRS-CZ1JF4R7J	4.7	1/16W Metal Oxide	AA	R3409	VRS-CZ1JF121J	120	1/16W Metal Oxide	AA
R2507	VRS-CZ1JF622D	6.2k	1/16W Metal Oxide	AA	R3410	VRS-CZ1JF151J	150	1/16W Metal Oxide	AA
R2508	VRS-CZ1JF104D	100k	1/16W Metal Oxide	AB	R3411	VRS-CZ1JF391J	390	1/16W Metal Oxide	AA
R2509	VRS-CZ1JF822D	8.2k	1/16W Metal Oxide	AA	R3412	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA
R2510	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R3413	VRS-CZ1JF391J	390	1/16W Metal Oxide	AA
R2511	VRS-CZ1JF153D	15k	1/16W Metal Oxide	AB	R3414	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R2512	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	R3415	VRS-CZ1JF151J	150	1/16W Metal Oxide	AA
R2513	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R3416	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA
R2514	VRS-CZ1JF154J	150k	1/16W Metal Oxide	AA	R3417	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA
R2515	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA	R3418	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA
R2516	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	R3419	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R2517	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R3420	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R2518	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R3421	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA
R2519	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA	R3422	VRS-CZ1JF151J	150	1/16W Metal Oxide	AA
R2520	VRS-CZ1JF474J	470k	1/16W Metal Oxide	AA	R3423	VRS-CZ1JF182J	1.8k	1/16W Metal Oxide	AA
R2521	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA	R3424	VRS-CZ1JF151J	150	1/16W Metal Oxide	AA
R2522	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	R3425	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA
R2523	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA	R3427	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA
R2524	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA	R3428	VRS-CZ1JF273D	27k	1/16W Metal Oxide	AA
R2525	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R3429	VRS-CZ1JF151J	150	1/16W Metal Oxide	AA
R2526	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA	R3430	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA
R2527	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	R3432	VRS-CZ1JF333D	33k	1/16W Metal Oxide	AB
R2528	VRS-CZ1JF474J	470k	1/16W Metal Oxide	AA	R3435	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA
R2529	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA	R3436	VRS-CZ1JF182J	1.8k	1/16W Metal Oxide	AA
R2530	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA	R3437	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R2532	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	R3442	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA
R2533	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA	R3445	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA
R2534	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R3450	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2537	VRS-CZ1JF180J	18	1/16W Metal Oxide	AA	R3451	VRS-CZ1JF334J	330k	1/16W Metal Oxide	AA
R2538	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R3452	VRS-CZ1JF820J	82	1/16W Metal Oxide	AA
R2581	VRS-CZ1JF180J	18	1/16W Metal Oxide	AA	R3453	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2582	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R3454	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R2583	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA	R3457	VRS-CZ1JF820J	82	1/16W Metal Oxide	AA
R2584	VRS-CZ1JF622D	6.2k	1/16W Metal Oxide	AA	R3462	VRS-CZ1JF271J	270	1/16W Metal Oxide	AA
R2585	VRS-CZ1JF104D	100k	1/16W Metal Oxide	AB	R3463	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA
R2586	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB	R3468	VRS-CZ1JF100J	10	1/16W Metal Oxide	AA
R2587	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R3469	VRS-CZ1JF390J	39	1/16W Metal Oxide	AA
R2588	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB	R3470	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA
R2589	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	R3471	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R2590	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R3472	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R2592	VRS-CZ1JF154J	150k	1/16W Metal Oxide	AA	R3473	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R2593	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA	R3478	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA
R2594	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	R3479	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA
R2604	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA	R3480	VRS-CZ1JF681J	680	1/16W Metal Oxide	AA
R2605	VRS-CZ1JF474J	470k	1/16W Metal Oxide	AA	R3481	VRS-CZ1JF680J	68	1/16W Metal Oxide	AB
R2606	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA	R3482	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA
R2610	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	R3486	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2615	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA	R3487	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA
R2616	VRS-CZ1JF474J	470k	1/16W Metal Oxide	AA	R3488	VRS-CZ1JF681D	680	1/16W Metal Oxide	AB
R2617	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA	R3489	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA
R2623	VRS-CZ1JF471J	470	1/16W Metal Oxide	AA	R3492	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R2800	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R3493	VRS-CZ1JF272J	2.7k	1/16W Metal Oxide	AA
R2801	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R3495	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R2802	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R3496	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA
R2810	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R3497	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2811	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R3498	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA
R2812	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R4401	VRS-CZ1JF2R2JY	2.2	1/16W Metal Oxide	AA
R2813	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	R4402	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2814	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA	R4403	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R2815	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R4404	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA
R2818	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R4405	VRS-CZ1JF272J	2.7k	1/16W Metal Oxide	AA
R2819	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R4406	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA
R2820	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R4407	VRS-CZ1JF272J	2.7k	1/16W Metal Oxide	AA
R2822	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R4408	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA
R2823	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R4409	VRS-CZ1JF272J	2.7k	1/16W Metal Oxide	AA
R2824	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R4410	VRS-CZ1JF121J	120	1/16W Metal Oxide	AA
R2825	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R4411	VRS-CZ1JF272J	2.7k	1/16W Metal Oxide	AA
R2831	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R4412	VRS-CZ1JF121J	120	1/16W Metal Oxide	AA
R2833	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R4413	VRS-CZ1JF272J	2.7k	1/16W Metal Oxide	AA
R3401	VRS-CZ1JF181J	180	1/16W Metal Oxide	AA	R4414	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R4415	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R7810	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA
R4416	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA	R7811	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA
R4417	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA	R7812	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA
R4418	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA	R7813	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA
R4419	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA	R7814	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA
R4420	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA	R7827	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R4421	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA	R7841	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R4422	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	R7843	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA
R4423	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA	R7847	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R4427	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA	R7851	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R4429	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA	R7852	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R4430	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA	R7854	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R4435	VRS-CZ1JF330J	33	1/16W Metal Oxide	AA	R7855	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA
R4436	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	R7856	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R4437	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	R7857	VRK-SA1JF564J	560k	1/16W Metal Composition	AC
R4440	VRS-CZ1JF330J	33	1/16W Metal Oxide	AA					
R4441	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	R7859	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R4442	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	R7861	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R4443	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	R8807	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R4444	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA	R8808	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R4445	VRS-CZ1JF102D	1k	1/16W Metal Oxide	AA	R8809	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R4446	VRS-CZ1JF102D	1k	1/16W Metal Oxide	AA	R8819	VRS-CZ1JF473D	47k	1/16W Metal Oxide	AB
R4447	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R8826	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R4448	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R8846	VRS-CZ1JF100J	10	1/16W Metal Oxide	AA
R4450	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R8847	VRS-CZ1JF100J	10	1/16W Metal Oxide	AA
R4451	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R8848	VRS-CZ1JF100J	10	1/16W Metal Oxide	AA
R4453	VRS-CZ1JF151J	150	1/16W Metal Oxide	AA	R8866	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA
R4454	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R8867	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R4456	VRS-CZ1JF151J	150	1/16W Metal Oxide	AA	R8868	VRS-CZ1JF123D	12k	1/16W Metal Oxide	AA
R4460	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R8869	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R4461	VRS-CZ1JF123D	12k	1/16W Metal Oxide	AA	R8881	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA
R4462	VRS-CZ1JF123D	12k	1/16W Metal Oxide	AA	R8882	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R4463	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA	R8892	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R4464	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	R8893	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R4465	VRS-CZ1JF273D	27k	1/16W Metal Oxide	AA	R8894	VRS-CZ1JF680J	68	1/16W Metal Oxide	AB
R4467	VRS-CZ1JF302D	3k	1/16W Metal Oxide	AA	R8895	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R4468	VRS-CZ1JF562D	5.6k	1/16W Metal Oxide	AB	R8896	VRS-CZ1JF153D	15k	1/16W Metal Oxide	AB
R4469	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA	R8899	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R4473	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA					
R4474	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA					
R4475	VRS-CZ1JF272J	2.7k	1/16W Metal Oxide	AA					
R4477	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA					
R4478	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA					
R4485	VRS-CZ1JF474J	470k	1/16W Metal Oxide	AA					
R4486	VRS-CZ1JF224J	220k	1/16W Metal Oxide	AA					
R4487	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA					
R4488	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA					
R4489	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA					
R4494	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA					
R4499	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA					
R5701	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA					
R7401	VRS-CZ1JF561J	560	1/16W Metal Oxide	AA					
R7402	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA					
R7403	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA					
R7410	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA					
R7413	VRS-CZ1JF512D	5.1k	1/16W Metal Oxide	AA					
R7415	VRS-CZ1JF560D	56	1/16W Metal Oxide	AB					
R7416	VRS-CZ1JF560D	56	1/16W Metal Oxide	AB					
R7417	VRS-CZ1JF560D	56	1/16W Metal Oxide	AB					
R7418	VRS-CZ1JF560D	56	1/16W Metal Oxide	AB					
R7419	VRS-CZ1JF221J	220	1/16W Metal Oxide	AA					
R7420	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA					
R7422	VRS-CZ1JF392D	3.9k	1/16W Metal Oxide	AB					
R7423	VRS-CZ1JF392D	3.9k	1/16W Metal Oxide	AB					
R7424	VRS-CZ1JF242D	2.4k	1/16W Metal Oxide	AA					
R7800	VRS-CZ1JF151J	150	1/16W Metal Oxide	AA					
R7801	VRS-CZ1JF272D	2.7k	1/16W Metal Oxide	AB					
R7802	VRS-CZ1JF151J	150	1/16W Metal Oxide	AA					
R7803	VRS-CZ1JF272D	2.7k	1/16W Metal Oxide	AB					
R7804	VRS-CZ1JF151J	150	1/16W Metal Oxide	AA					
R7805	VRS-CZ1JF272D	2.7k	1/16W Metal Oxide	AB					
R7806	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA					
R7807	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA					
R7808	VRS-CZ1JF823J	82k	1/16W Metal Oxide	AA					
R7809	VRS-CZ1JF393J	39k	1/16W Metal Oxide	AA					

BALUNES									
FB201	RBLN-0049TAZZ	Balun, BLN-0049TA	AD						
FB203	RBLN-0049TAZZ	Balun, BLN-0049TA	AD						
FB204	RBLN-0049TAZZ	Balun, BLN-0049TA	AD						
FB456	RBLN-0102TAZZY	Balun, BLN-0102TA	AB						
FB900	RBLN-0119TAZZ	Balun, BLN-0119TA	AC						
FB901	RBLN-0119TAZZ	Balun, BLN-0119TA	AC						
FB1471	RBLN-0120TAZZ	Balun, BLN-0120TA	AC						
FB1472	RBLN-0120TAZZ	Balun, BLN-0120TA	AC						
FB4402	RBLN-0102TAZZY	Balun, BLN-0120TA	AB						
FB4461	RBLN-0102TAZZY	Balun, BLN-0120TA	AB						
FB7401	RBLN-0102TAZZY	Balun, BLN-0120TA	AB						
FB8800	RBLN-0028TAZZ	Balun, BLN-0028TA	AB						
R420	RBLN-0242TAZZY	Balun, BLN-0242TA	AB						
R1470	RBLN-0242TAZZY	Balun, BLN-0242TA	AB						
R1472	RBLN-0242TAZZY	Balun, BLN-0242TA	AB						
R4495	RBLN-0242TAZZY	Balun, BLN-0242TA	AB						

MISCELLANEOUS PARTS									
SC201	QCNCW4080TAZZ	Connector, 40Pin	AF						
SC701	QSOCN1098TAZZ	Socket, 10Pin	AE						
SC703	QCNCW1796TAZZY	Connector, 17Pin	AF						
SC900	QCNCW2080TAZZ	Connector, 20Pin	AF						
SC1401	QCNCW2197TAZZY	Connector, 21Pin	AG						
SC2501	QCNCW2796TAZZ	Connector, 27Pin	AG						
SC2801	QCNCW3396TAZZY	Connector, 33Pin	AG						
SC3301	QCNCW8080TAZZ	Connector, 80Pin	AH						
SC5701	QCNCW3996TAZZY	Connector, 39Pin	AH						
SC5702	QCNCW3996TAZZY	Connector, 39Pin	AH						
SC5703	QCNCW4501TAN1Y	Connector, 45Pin	AG						
SC5704	QCNCW2196TAZZY	Connector, 21Pin	AF						
SC8801	QCNCW2196TAZZY	Connector, 21Pin	AF						

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>DUNTK3120QA03 SUB PWB UNIT</b>					C641	VCKYCY0JF105Z	1	6.3V Ceramic	AB
<b>INTEGRATED CIRCUITS</b>					C642	VCSATE0JJ107M	100	6.3V Tantalum	AE
IC601	VHiBH7761KV-1		BH7761KV, Audio I/O	AS	C644	VCKYCY1CB683K	0.068	16V Ceramic	AC
IC3701	RH-iXA142WJZZQ		IXA142WJ, Card Micon	AY	C645	VCKYCY1AF104Z	0.1	10V Ceramic	AB
IC3702	RH-iX0950TAZZQ		IX0950TA, 16Mbit DRAM	AW	C646	VCKYCY0JF105Z	1	6.3V Ceramic	AB
IC3750	VHRS5C313/-1		RS5C313, Timer	AL	C647	VCKYCY1CB473K	0.047	16V Ceramic	AA
IC6601	VHiBA7780KV-1		BA7780KV, Mic Amp	AT	C648	VCKYCY1CB473K	0.047	16V Ceramic	AA
IC6602	VHiTA75S01F-1		TA75S01F, Amp	AD	C651	VCKYCY1HB102K	1000p	50V Ceramic	AB
<b>TRANSISTORS</b>					C661	VCCCCZ1HH101J	100p	50V Ceramic	AB
Q601	VSFMG12////-1		FMG12	AD	C685	VCSATA0JJ226M	22	6.3V Tantalum	AD
Q602	VSRN4984////-1		RN4984	AC	C686	VCSATA0JJ226M	22	6.3V Tantalum	AD
Q604	VSHN2A01FU/-1		HN2A01FU	AC	C3701	VCKYTV1AB105K	1	10V Ceramic	AD
Q605	VSRT1N441U/-1		RT1N441U	AB	C3702	VCKYCY1AF104Z	0.1	10V Ceramic	AB
Q606	VSRN4984////-1		RN4984	AC	C3703	VCKYCY1AF104Z	0.1	10V Ceramic	AB
Q608	VSFMG12////-1		FMG12	AD	C3704	VCKYCY1AF104Z	0.1	10V Ceramic	AB
Q609	VSHN2C01FU/-1		HN2C01FU	AC	C3705	VCKYCY1AF104Z	0.1	10V Ceramic	AB
Q3701	VSHN2C01FU/-1		HN2C01FU	AC	C3706	VCKYCY1AF104Z	0.1	10V Ceramic	AB
Q3704	VS2SA1989R/-1		2SA1989R	AB	C3707	VCKYCY1HB102K	1000p	50V Ceramic	AB
Q3705	VSHN2C01FU/-1		HN2C01FU	AC	C3708	VCKYCY1AF104Z	0.1	10V Ceramic	AB
Q3706	VSRT1N441U/-1		RT1N441U	AB	C3709	VCSATA0JJ106M	10	6.3V Tantalum	AD
Q3707	VSRT1N441U/-1		RT1N441U	AB	C3710	VCKYCY1CB103K	0.01	16V Ceramic	AB
Q3708	VSMCH6305++-1Y		MCH6305++	AE	C3711	VCKYCY1CB103K	0.01	16V Ceramic	AB
Q6602	VS2SC5383F/-1		2SC5383F	AB	C3712	VCKYCY1HB102K	1000p	50V Ceramic	AB
Q6603	VSHN2C01FU/-1		HN2C01FU	AC	C3714	VCKYCY1HB102K	1000p	50V Ceramic	AB
Q6606	VS2SC5383F/-1		2SC5383F	AB	C3715	VCCCCZ1HH101J	100p	50V Ceramic	AB
Q6607	VS2SC5383F/-1		2SC5383F	AB	C3717	VCSATA0JJ336M	33	6.3V Tantalum	AD
Q6608	VSFC13////-1		FC13	AD	C3718	VCKYCY1CB103K	0.01	16V Ceramic	AB
Q6609	VSRN4986////-1		RN4986	AB	C3750	VCKYCY1AF104Z	0.1	10V Ceramic	AB
<b>DIODES</b>					C3751	VCKYCY1CB103K	0.01	16V Ceramic	AB
D3751	RH-DX0182TAZZ		DX0182TA	AD	C3752	VCCCCZ1HH150J	15p	50V Ceramic	AB
D6601	VHDKDS160E+-1Y		KDS160E+	AB	C3753	VCCCCZ1HH220J	22p	50V Ceramic	AB
<b>PACKAGED CIRCUIT</b>					C3754	VCCCCZ1HH221J	220p	50V Ceramic	AB
X3750	RCRSC0163TAZZ		Crystal, CRSC0163TA	AG	C3755	VCCCCZ1HH221J	220p	50V Ceramic	AB
<b>COILS</b>					C6603	VCKYCY1HB102K	1000p	50V Ceramic	AB
FL3701	RFILZ0003TAZZY		Filter	AD	C6604	VCSAPR0JJ106M	10	6.3V Tantalum	AD
L601	VPCEM470M3R7N		Peaking, 47μH	AC	C6605	VCKYCY1AF104Z	0.1	10V Ceramic	AB
L603	VPBWM100KR50N		Peaking, 10μH	AC	C6606	VCKYCY1CB223K	0.022	16V Ceramic	AC
L3701	VPMAN100MR50N		Peaking, 10μH	AC	C6607	VCKYCY1CB223K	0.022	16V Ceramic	AC
L6601	VPCBM470K2R4N		Peaking, 47μH	AC	C6608	VCKYCY1AB104K	0.1	10V Ceramic	AB
<b>CAPACITORS</b>					C6610	VCKYCY1AB104K	0.1	10V Ceramic	AB
C603	VCKYTV1CF225Z	2.2	16V Ceramic	AC	C6611	VCKYCY1CB333K	0.033	16V Ceramic	AA
C605	VCKYCY1AF104Z	0.1	10V Ceramic	AB	C6612	VCKYCY1HB682K	6800p	50V Ceramic	AA
C606	VCKYCY0JB105K	1	6.3V Ceramic	AC	C6613	VCKYCY1HB272KY	2700p	50V Ceramic	AA
C607	VCKYCY1AB104K	0.1	10V Ceramic	AB	C6614	VCKYCY1CB273K	0.027	16V Ceramic	AA
C608	VCKYCY1AB104K	0.1	10V Ceramic	AB	C6615	VCKYCY1CB104K	0.1	16V Ceramic	AB
C610	VCKYCY1AB104K	0.1	10V Ceramic	AB	C6616	VCKYCY1EB223K	0.022	25V Ceramic	AA
C611	VCKYCY1AB104K	0.1	10V Ceramic	AB	C6617	VCKYCY1EB223K	0.022	25V Ceramic	AA
C616	VCKYTV1CF225Z	2.2	16V Ceramic	AC	C6618	VCKYCY1CB223K	0.022	16V Ceramic	AC
C617	VCKYCY0JB105K	1	6.3V Ceramic	AC	C6619	VCKYCY1CB123K	0.012	16V Ceramic	AB
C618	VCKYCY1CB683K	0.068	16V Ceramic	AC	C6620	VCKYCY1HB471K	470p	50V Ceramic	AB
C619	VCKYCY1CB473K	0.047	16V Ceramic	AA	C6621	VCKYCY1HB102K	1000p	50V Ceramic	AB
C621	VCCCCZ1HH101J	100p	50V Ceramic	AB	C6622	VCKYCY1CB223K	0.022	16V Ceramic	AC
C622	VCKYCY1EB472K	4700p	25V Ceramic	AB	C6623	VCKYCY1HB102K	1000p	50V Ceramic	AB
C623	VCKYCY1CB104K	0.1	16V Ceramic	AB	C6626	VCKYCY1CB223K	0.022	16V Ceramic	AC
C624	VCKYCY1EB472K	4700p	25V Ceramic	AB	C6628	VCSAPR0JJ106M	10	6.3V Tantalum	AD
C625	VCKYCY1CB473K	0.047	16V Ceramic	AA	C6629	VCKYCY1AB104K	0.1	10V Ceramic	AB
C626	VCKYCY1EB472K	4700p	25V Ceramic	AB	C6630	VCKYCY1AB104K	0.1	10V Ceramic	AB
C628	VCKYCY1CB104K	0.1	16V Ceramic	AB	C6631	VCKYCY1AB104K	0.1	10V Ceramic	AB
C629	VCKYCY1EB472K	4700p	25V Ceramic	AB	C6632	VCKYCY1CB333K	0.033	16V Ceramic	AA
C631	VCSAPR1AJ105M	1	10V Tantalum	AD	C6633	VCKYCY1CB273K	0.027	16V Ceramic	AA
C632	VCSATA0JJ226M	22	6.3V Tantalum	AD	C6634	VCKYCY1HB272KY	2700p	50V Ceramic	AA
C633	VCSATA0JJ226M	22	6.3V Tantalum	AD	C6635	VCKYCY1HB682K	6800p	50V Ceramic	AA
C635	VCSATE1AJ476M	47	10V Tantalum	AD	C6636	VCKYCY1EB223K	0.022	25V Ceramic	AA
C637	VCKYCY0JF105Z	1	6.3V Ceramic	AB	C6637	VCKYCY1EB223K	0.022	25V Ceramic	AA
C638	VCSAPR1AJ475M	4.7	10V Tantalum	AD	C6638	VCKYCY1CB104K	0.1	16V Ceramic	AB
C640	VCSATE1AJ476M	47	10V Tantalum	AD	C6639	VCKYCY1CB223K	0.022	16V Ceramic	AC
					C6640	VCKYCY1CB123K	0.012	16V Ceramic	AB
					C6641	VCKYCY1HB471K	470p	50V Ceramic	AB
					C6642	VCKYCY1AF104Z	0.1	10V Ceramic	AB
					C6643	VCSATA1AJ106M	10	10V Tantalum	AC
					C6644	VCKYCY0JF105Z	1	6.3V Ceramic	AB
					C6645	VCKYCY0JF105Z	1	6.3V Ceramic	AB
					C6646	VCKYCY1AF104Z	0.1	10V Ceramic	AB
					C6650	VCCCCZ1HH101J	100p	50V Ceramic	AB
					C6651	VCKYCY1AB224K	0.22	10V Ceramic	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C6652	VCKYCY1CB473K	0.047	16V Ceramic	AA	R3722	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
C6653	VCKYCY1EB223K	0.022	25V Ceramic	AA	R3723	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
C6654	VCKYCY1AB224K	0.22	10V Ceramic	AB	R3724	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
C6655	VCKYCY1HB102K	1000p	50V Ceramic	AB	R3725	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
C6656	VCSAPD1AJ225M	2.2	10V Tantalum	AC	R3726	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
C6657	VCSAPD1AJ225M	2.2	10V Tantalum	AC	R3727	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
C6658	VCKYCY1AB104K	0.1	10V Ceramic	AB	R3728	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
C6659	VCKYCY1AF104Z	0.1	10V Ceramic	AB	R3729	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
C6660	VCCCCZ1HH101J	100p	50V Ceramic	AB	R3730	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
C6684	VCKYTV1CF225Z	2.2	16V Ceramic	AC	R3731	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
<b>RESISTORS</b>					R3732	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R603	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R3733	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R609	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R3734	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R610	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA	R3735	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R613	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA	R3737	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R614	VRK-SA1JF222J	2.2k	1/16W	AB	R3750	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA
			Metal Composition		R3751	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R616	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA	R3762	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R621	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA	R3765	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R623	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA	R3769	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R624	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA	R3770	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R625	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R3771	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA
R626	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA	R3772	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R627	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA	R3773	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R628	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA	R3774	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R630	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R3775	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R631	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA	R3776	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R632	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R3777	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R633	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA	R3778	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R634	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA	R3779	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R635	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R3780	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA
R638	VRS-CZ1JF106J	10M	1/16W Metal Oxide	AA	R3783	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA
R639	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R3784	VRS-CY1JF000J	0	1/16W Metal Oxide	AA
R640	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	R3786	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R641	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA	R3787	VRS-CZ1JF222D	2.2k	1/16W Metal Oxide	AA
R647	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R3788	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R648	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	R3789	VRS-CZ1JF153D	15k	1/16W Metal Oxide	AB
R649	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	R3790	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R651	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	R3791	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R652	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA	R3792	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R653	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA	R3793	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R655	VRK-SA1JF223J	22k	1/16W	AB	R3794	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
			Metal Composition		R3795	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R656	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA	R3796	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R657	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	R3797	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R658	VRS-CZ1JF273J	27k	1/16W Metal Oxide	AA	R3798	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R660	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R3799	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB
R661	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R3800	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R662	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R3801	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R663	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R3802	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R667	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA	R3803	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R668	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R3804	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R670	VRS-CZ1JF100J	10	1/16W Metal Oxide	AA	R3805	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R673	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA	R3806	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R676	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA	R3807	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R685	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA	R3808	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R686	VRS-CZ1JF563J	56k	1/16W Metal Oxide	AA	R3809	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R687	VRS-CZ1JF121J	120	1/16W Metal Oxide	AA	R3810	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R688	VRS-CZ1JF121J	120	1/16W Metal Oxide	AA	R3811	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R689	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R3812	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R3705	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	R3813	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R3710	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R3814	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R3711	VRS-CZ1JF332J	3.3k	1/16W Metal Oxide	AA	R3815	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R3713	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	R3816	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R3714	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	R3817	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R3715	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	R3818	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R3716	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA	R3819	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R3717	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	R6603	VRS-CZ1JF154J	150k	1/16W Metal Oxide	AA
R3718	VRS-CZ1JF474J	470k	1/16W Metal Oxide	AA	R6604	VRS-CZ1JF154J	150k	1/16W Metal Oxide	AA
R3719	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	R6606	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
R3720	VRK-SA1JF103J	10k	1/16W	AB	R6607	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA
			Metal Composition		R6611	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R3721	VRK-SA1JF102J	1k	1/16W	AB	R6612	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA
			Metal Composition		R6615	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA
					R6616	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R6617	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	IC1002	VHiNJM2112V-1		NJM2112V, Op-Amp	AF
R6618	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	<b>TRANSISTORS</b>				
R6619	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA	Q1	VS2SC5383F/-1		2SC5383F	AB
R6620	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA	Q2	VS2SC4627CD-1		2SC4627CD	AB
R6621	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	Q4	VS2SC4627CD-1		2SC4627CD	AB
R6622	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA	Q21	VSCPH3206//-1		CPH3206	AD
R6623	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	<b>DIODE</b>				
R6624	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	D1	VHDMC2852//-1		MC2852	AB
R6625	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	<b>PACKAGED CIRCUIT</b>				
R6626	VRS-CZ1JF184J	180k	1/16W Metal Oxide	AA	X21	RCRSZ0083TAZZ		Crystal, CRSZ0083TA	AS
R6627	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	<b>COILS</b>				
R6628	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	L23	VPCEM100MR70N		Peaking, 10μH	AC
R6629	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	L24	VPD9M100KR86N		Peaking, 10μH	AC
R6630	VRS-CZ1JF222J	2.2k	1/16W Metal Oxide	AA	L101	VPD9M680J8R6N		Peaking, 68μH	AC
R6632	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	L102	VPAWM100K1R5N		Peaking, 10μH	AC
R6633	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA	L1001	VPAWM220K2R7N		Peaking, 22μH	AC
R6634	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA	<b>CAPACITORS</b>				
R6635	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	C1	VCSATA1CJ106M	10	16V Tantalum	AD
R6636	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	C2	VCKYCZ1CB103K	0.01	16V Ceramic	AB
R6637	VRS-CZ1JF183J	18k	1/16W Metal Oxide	AA	C3	VCKYCZ1CB103K	0.01	16V Ceramic	AB
R6638	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA	C4	VCKYCZ1HF103Z	0.01	50V Ceramic	AB
R6639	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA	C5	VCKYCZ1HB102K	1000p	50V Ceramic	AB
R6640	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA	C6	VCKYTV1EB104K	0.1	25V Ceramic	AB
R6641	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	C8	RC-KZ0046TAZZ	4.7	35V Ceramic	AD
R6642	VRS-CZ1JF333J	33k	1/16W Metal Oxide	AA	C9	VCKYCY1EF104Z	0.1	25V Ceramic	AA
R6643	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	C21	VCSATE1CJ226M	22	16V Tantalum	AE
R6644	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	C22	VCSATJ1VJ685M	6.8	35V Tantalum	AE
R6645	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	C23	VCSATA1AJ106M	10	10V Tantalum	AC
R6646	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA	C24	VCKYCZ1CB103K	0.01	16V Ceramic	AB
R6647	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA	C25	VCKYCZ1CB103K	0.01	16V Ceramic	AB
R6648	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA	C26	VCSATA1AJ106M	10	10V Tantalum	AC
R6649	VRS-CZ1JF512J	5.1k	1/16W Metal Oxide	AB	C27	VCKYCZ1CB103K	0.01	16V Ceramic	AB
R6650	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	C28	VCKYCY1CB104K	0.1	16V Ceramic	AB
R6651	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	C29	VCCCCZ1HH221J	220p	50V Ceramic	AB
R6656	VRS-CZ1JF824J	820k	1/16W Metal Oxide	AA	C30	VCKYCZ1CB103K	0.01	16V Ceramic	AB
R6657	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA	C31	VCCCCZ1HH221J	220p	50V Ceramic	AB
R6658	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA	C32	VCKYCZ1CB103K	0.01	16V Ceramic	AB
R6659	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA	C33	VCKYCZ1CB103K	0.01	16V Ceramic	AB
R6660	VRS-CZ1JF682J	6.8k	1/16W Metal Oxide	AA	C34	VCKYCZ1CB103K	0.01	16V Ceramic	AB
R6661	VRS-CZ1JF154J	150k	1/16W Metal Oxide	AA	C36	VCKYCZ1HB102K	1000p	50V Ceramic	AB
R6662	VRS-CZ1JF154J	150k	1/16W Metal Oxide	AA	C37	VCSATA0JJ106M	10	6.3V Tantalum	AD
R6663	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA	C38	VCSATA1VJ155M	1.5	35V Tantalum	AC
R6665	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	C39	VCSAPR0JJ106M	10	6.3V Tantalum	AD
R6672	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA	C101	VCKYCY1CB104K	0.1	16V Ceramic	AB
<b>BALUNES</b>					C102	VCKYCZ1CB153K	0.015	16V Ceramic	AB
FB3701	RBLN-0057TAZZ		Balun, BLN-0057TA	AC	C103	VCKYCY0JB105K	1	6.3V Ceramic	AC
FB6601	RBLN-0102TAZZY		Balun, BLN-0102TA	AB	C104	VCKYCZ1AB104K	0.1	10V Ceramic	AB
FB6602	RBLN-0102TAZZY		Balun, BLN-0102TA	AB	C105	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
<b>MISCELLANEOUS PARTS</b>					C106	VCKYCY1CB104K	0.1	16V Ceramic	AB
BAT3750QTANS9041TAFW			Terminal	AD	C111	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
BAT3751QTANS9042TAFW			Terminal	AC	C112	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
P6601	QPLGN0474TAZZ		Socket, 4Pin	AD	C114	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
SC3701	QSOCC0075TAZZY		Plug, 15Pin	AM	C115	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
SC3702	QCNCW3080TAZZY		Connector, 45Pin	AE	C116	VCSATA0JJ156M	15	6.3V Tantalum	AC
SC3703	QCNCW1481TAZZY		Connector, 10Pin	AE	C120	VCKYTV1CB105K	1	16V Ceramic	AC
SC3704	QCNCW3997TAZZY		Connector, 12Pin	AH	C121	VCSATA0JJ156M	15	6.3V Tantalum	AC
SC3705	QCNCW3997TAZZY		Connector, 30Pin	AH	C1001	VCSATA0JJ156M	15	6.3V Tantalum	AC
SC3706	QSOCN4511TAN1		Socket, 14Pin	AH	C1002	VCSATA0JJ156M	15	6.3V Tantalum	AC
SC3707	QSOCN1060TAZZ		Socket, 39Pin	AD	C1003	VCKYCZ1CB223K	0.022	16V Ceramic	AC
SC6602	QSOCN1260TAZZY		Socket, 39Pin	AD	C1004	VCKYCZ1CB223K	0.022	16V Ceramic	AC
SW3702	QSW-P0106TAZZY		Switch, LCD Close SW	AD	C1005	VCKYCZ1HB332K	3300p	50V Ceramic	AA
<b>DUNTK3121QA01 CAMERA PWB UNIT</b>					C1006	VCKYCZ1AB473K	0.047	10V Ceramic	AB
<b>INTEGRATED CIRCUITS</b>					C1007	VCKYCZ1AB473K	0.047	10V Ceramic	AB
IC21	VHiCXD3602R-1Y		CXD3602R, Timing Generator	AX	C1008	VCKYCZ1HB332K	3300p	50V Ceramic	AA
IC101	VHiHD49325H-1Q		HD49325H, CDS/ADC	AX	C1009	RC-KZ0074TAZZ	10	6.3V Ceramic	AF
IC1001	VHiNJM2904V-1		NJM2904V, Op-Amp	AF	C1010	RC-KZ0074TAZZ	10	6.3V Ceramic	AF
					C1011	VCCCCZ1HH101J	100p	50V Ceramic	AB
					C1012	VCCCCZ1HH101J	100p	50V Ceramic	AB
					C1013	VCKYCZ1CB223K	0.022	16V Ceramic	AC
					C1014	VCKYCZ1CB223K	0.022	16V Ceramic	AC

Ref. No.	Part No.	★	Description	Code
C1015	VCKYCZ1HF103Z	0.01	50V Ceramic	AB
C1016	VCSATA0JJ156M	15	6.3V Tantalum	AC
C1017	VCKYCZ1HF103Z	0.01	50V Ceramic	AB
C1018	VCKYCY1CF104Z	0.1	16V Ceramic	AA

**RESISTORS**

R2	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R4	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R5	VRS-CZ1JF123J	12k	1/16W Metal Oxide	AA
R6	VRS-CZ1JF122J	1.2k	1/16W Metal Oxide	AA
R7	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R10	VRS-CZ1JF392J	3.9k	1/16W Metal Oxide	AA
R11	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R21	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R23	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R24	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R26	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R27	VRS-CZ1JF112J	1.1k	1/16W Metal Oxide	AA
R28	VRS-CZ1JF562J	5.6k	1/16W Metal Oxide	AA
R29	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R30	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R31	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R32	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R33	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R34	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R35	VRS-CZ1JF331J	330	1/16W Metal Oxide	AA
R37	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R38	VRS-CZ1JF100J	10	1/16W Metal Oxide	AA
R40	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R103	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R105	VRS-CZ1JF220J	22	1/16W Metal Oxide	AA
R106	VRS-CZ1JF220J	22	1/16W Metal Oxide	AA
R107	VRS-CZ1JF220J	22	1/16W Metal Oxide	AA
R108	VRS-CZ1JF220J	22	1/16W Metal Oxide	AA
R109	VRS-CZ1JF220J	22	1/16W Metal Oxide	AA
R110	VRS-CZ1JF220J	22	1/16W Metal Oxide	AA
R111	VRS-CZ1JF220J	22	1/16W Metal Oxide	AA
R112	VRS-CZ1JF220J	22	1/16W Metal Oxide	AA
R113	VRS-CZ1JF220J	22	1/16W Metal Oxide	AA
R114	VRS-CZ1JF220J	22	1/16W Metal Oxide	AA
R115	VRS-CZ1JF243J	24k	1/16W Metal Oxide	AA
R116	VRS-CZ1JF330J	33	1/16W Metal Oxide	AA
R119	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1001	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R1002	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R1003	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R1004	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R1005	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R1006	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R1007	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R1008	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R1009	VRS-CZ1JF154D	150k	1/16W Metal Oxide	AB
R1010	VRS-CZ1JF154D	150k	1/16W Metal Oxide	AB
R1011	VRS-CZ1JF274J	270k	1/16W Metal Oxide	AA
R1012	VRS-CZ1JF274J	270k	1/16W Metal Oxide	AA
R1013	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R1014	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R1015	VRS-CZ1JF153J	15k	1/16W Metal Oxide	AA
R1016	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA
R1017	VRS-CZ1JF154D	150k	1/16W Metal Oxide	AB
R1018	VRS-CZ1JF154D	150k	1/16W Metal Oxide	AB

**BALUNE**

R22	RBLN-0242TAZZY	Balun, BLN-0242TA	AB
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**MISCELLANEOUS PARTS**

	PSLDM3370TAFW	Shield	AC
RMC1001	RSNSG0013CEZZ	Gyro Sensor	AX
RMC1002	RSNSG0004CEZZ	Gyro Sensor	AX
SC1002	QCNCW3996TAZZY	Connector, 39Pin	AH

Ref. No.	Part No.	★	Description	Code
<b>DUNTK3122QA01 LCD PWB UNIT</b>				

**INTEGRATED CIRCUIT**

IC9800	VHiTA75S01F-1	TA75S01F, I DET	AD
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**TRANSISTORS**

Q1800	VSHN1B04FU/-1	HN1B04FU	AC
Q1801	VSHN1B04FU/-1	HN1B04FU	AC
Q1802	VSFMMT717/-1	FMMT717	AE
Q1803	VSRT1N144U/-1	RT1N144U	AB
Q9800	VS2SC5383F/-1	2SC5383F	AB
Q9803	VSHN1B04FU/-1	HN1B04FU	AC
Q9804	VSCPH5504++-1Y	CPH5504++	AE

**PACKAGED CIRCUIT**

TH9800	VHHT1103K44-1	Thermistor	AD
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**COILS AND TRANSFORMER**

L1800	VPD9M470J6R6N	Peaking, 47μH	AC
L9800	RCiLP0323TAZZ	Coil, 4.7μH	AD
L9801	RCiLP0313TAZZ	Coil, 33μH	AE
△ T9800	RTRNZ0157TAZZ	Transformer	AL

**CAPACITORS**

C1800	VCKYCZ1HF103Z	0.01	50V Ceramic	AB
C1802	VCKYCY1EB104KY	0.1	25V Ceramic	AB
C1803	RC-KZ0084TAZZ	1	25V Ceramic	AC
C1804	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C1805	VCKYCY0JB105K	1	6.3V Ceramic	AC
C1806	VCKYTV1CB105K	1	16V Ceramic	AC
C1808	VCKYTV1CB105K	1	16V Ceramic	AC
C1810	VCKYCY0JB105K	1	6.3V Ceramic	AC
C1811	VCKYCZ1HF103Z	0.01	50V Ceramic	AB
C1812	VCCCCZ1HH390J	39p	50V Ceramic	AB
C1816	VCKYCY0JB105K	1	6.3V Ceramic	AC
C9800	RC-KZ0055TAZZ	3.3	16V Ceramic	AD
C9802	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C9803	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C9807	VCKYCY1HB332K	3300p	50V Ceramic	AA
C9809	VCKYCZ1CB103K	0.01	16V Ceramic	AB
C9810	RC-KZ0351CEZZ	18p	3kV Ceramic	AD
C9811	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
C9812	VCKYCZ1AB104K	0.1	10V Ceramic	AB
C9815	RC-CZ0061TAZZY	0.022	25V Ceramic	AD

**RESISTORS**

R1802	VRS-CZ1JF101J	100	1/16W Metal Oxide	AA
R1803	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1804	VRS-CZ1JF104J	100k	1/16W Metal Oxide	AA
R1805	VRS-CZ1JF105J	1M	1/16W Metal Oxide	AA
R1806	VRS-CZ1JF223J	22k	1/16W Metal Oxide	AA
R1807	VRS-CZ1JF154J	150k	1/16W Metal Oxide	AA
R1808	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA
R1809	VRS-CZ1JF100J	10	1/16W Metal Oxide	AA
R1810	VRS-CZ1JF100J	10	1/16W Metal Oxide	AA
R1811	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R1812	VRS-CZ1JF683J	68k	1/16W Metal Oxide	AA
R1813	VRS-CZ1JF821J	820	1/16W Metal Oxide	AA
R1814	VRS-CZ1JF330J	33	1/16W Metal Oxide	AA
R1815	VRS-CZ1JF330J	33	1/16W Metal Oxide	AA
R1816	VRS-CZ1JF330J	33	1/16W Metal Oxide	AA
R1817	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1818	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1819	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1820	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1821	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1825	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1826	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA
R1827	VRS-CZ1JF102J	1k	1/16W Metal Oxide	AA
R1828	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R1829	VRS-CZ1JF472J	4.7k	1/16W Metal Oxide	AA
R1830	VRS-CZ1JF000J	0	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R9800	VRS-CZ1JF121J	120	1/16W Metal Oxide	AA	C329	VCSATA1AJ106M	10	10V Tantalum	AC
R9801	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	C330	VCKYCZ1HF103Z	0.01	50V Ceramic	AB
R9802	VRS-CZ1JF152J	1.5k	1/16W Metal Oxide	AA	C331	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
R9804	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB	C332	VCKYCZ1EB472K	4700p	25V Ceramic	AB
R9805	VRS-CZ1JF182D	1.8k	1/16W Metal Oxide	AB	C333	VCKYCZ1CB822K	8200p	16V Ceramic	AB
R9806	VRS-CZ1JF103D	10k	1/16W Metal Oxide	AB	C340	VCCCCZ1HH5R0C	5p	50V Ceramic	AC
R9807	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA	C342	VCCCCZ1HH5R0C	5p	50V Ceramic	AC
R9808	VRS-CZ1JF271D	270	1/16W Metal Oxide	AB	C343	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
R9809	VRS-CZ1JF271D	270	1/16W Metal Oxide	AB	C344	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
R9810	VRS-CY1JFR22J	0.22	1/16W Metal Oxide	AA	C345	VCKYCZ1AF104Z	0.1	10V Ceramic	AB
R9812	VRS-CZ1JF102D	1k	1/16W Metal Oxide	AA					
R9813	VRS-CZ1JF153D	15k	1/16W Metal Oxide	AB					
R9817	VRS-CZ1JF103J	10k	1/16W Metal Oxide	AA					
R9818	VRS-CZ1JF473J	47k	1/16W Metal Oxide	AA					

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>MECHANISM PARTS</b>					401	LX-WZ1071GE02		CW ø 0.7 ø 1.8t0.1	AC
301	LCHSM0181GEZZ		Main Chassis Ass'y	AQ	402	LX-WZ1104GE06		CW ø 0.7 ø 2.2t0.25	AB
302	MLEVF0539GEFW		Eject Control Lever	AD	403	LX-WZ1029GE00		CW ø 1.2 ø 3t0.25	AA
303	MLEVF0502GEFW		Pinch Control Lever	AD	411	LZ-WZ1105GE00		W ø 1.2 ø 2.5t0.13	AA
304	NGERH3062GEFW		Main Cam	AD	412	LZ-WZ1106GE00		W ø 1.2 ø 2.5t0.2	AA
305	MLEVF0503GEZZ		Shifter Drive Lever Ass'y	AE	413	XWHJZ12-03025		W ø 1.2 ø 2.5t0.3	AA
306	MLEVF0505GEFW		Loading Lever	AD	414	XWHJZ12-04025		W ø 1.2 ø 2.5t0.4	AA
307	MARMM0130GEZZ		S Loading Arm Ass'y	AF	415	XWHJZ12-05025		W ø 1.2 ø 2.5t0.5	AA
308	MARMM0131GEZZ		Tu Loading Arm Ass'y	AF	420	LX-BZ3202GEFF		Swing Arm Release	AC
309	MLEVF0508GEFW		T Arm Control Lever	AD				Lever Fixing Screw	
311	LANGG9121GEFW		CAP FPC Stopper	AD	421	LHLDZ2025GEZZ		Intermediate Gear Stopper	AB
312	LANGF9016GEZZ		Intermediate Gear	AG	425	LX-BZ0107GEFF		Special Screw M1.2 x L1	AB
			ANG Ass'y		426	LX-BZ0108GEFF		Special Screw M1.2 x L3.3	AA
313	MARMM0132GEZZ		Swing Arm Ass'y	AG	428	LX-NZ0102GEFW		S Guide Hexagon Nut	AC
314	LANGJ0053GEFW		Mechanism Fixing Angle	AH	429	LX-BZ3203GEFF		Type 1 Minuteness	AB
315	LANGJ0054GEFW		Head amp PWB ANG	AE				Screw M1.4 x L1	
324	RDTCH0039GEZZ		Dew Sensor	AD	430	LX-BZ3185GEFN		Special Screw M1.4 x L2	AB
330	CCHSS0050GE03		FPC Affixing Slide Chassis	AY	431	LX-BZ3135GEFF		Type 2 Minuteness	AA
331	LCHSS0050GEZZ		Slide Chassis Ass'y	AN				Screw M1.4 x L1	
332	CPWBH6079GE01		Sensor FPC Ass'y	AV	432	LX-BZ3201GEFF		Special Head	AB
334	LHLDP0104GEZZ		S-LED Holder	AC				Screw M1.4 x L2	
335	LHLDP0105GEZZ		Tu-LED Holder	AC	433	LX-BZ3132GEFF		Special Head	AA
337	LHLDZ0115GEZZ		Sensor FPC Guide	AC				Screw M1.4 x L1.5	
338	QSW-M0035TAZZ		Down SW	AC	434	LX-BZ3131GEFN		Special Screw M1.4 x L1.6	AA
339	QTANZ0006GEZZ		Mic Contact SW	AG	435	LX-HZ3089GEFF		S Tight Screw M1.4 x L2	AA
340	RH-PX0180TAZZ		Cassette LED	AE	436	LX-HZ3076GEFF		S Tight Screw M1.4 x L3	AA
341	RH-PX0211TAZZY		S/E Sensor	AD	437	LX-HZ3088GEFF		L Motor Installation	AB
342	RDTCM0006TAZZ		Reel Sensor	AC				Screw	
344	LANGG9124GEFW		Slide Adjustment ANG	AC	438	LX-BZ3225GEFF		Drum Installation Screw	AC
345	CANGG9123GE01		Down Guide with Label	AF	439	LX-BZ3181GEFN		GR Lock Screw	AD
347	TLABH0590GEZZ		Cassette Control Caution	AB	440	LX-HZ3084GEFF		S Tight Screw M1.4 x L4	AC
			Label		451	LPOLM0065GEZZ		Sup Pole Base Ass'y	AK
351	MLEVF0542GEZZ		Tension Arm Ass'y	AG	452	LPOLM0066GEZZ		Tu Pole Base Ass'y	AK
352	MLEVF0511GEZZ		Tu Guide Arm Ass'y	AG	453	CGIDM0158GE03		Drum Base Ass'y	AH
353	MLEVF0512GEZZ		Brake Shifter Ass'y	AE	454	NROLM0046GEZZ		Guide Roller Ass'y	AM
354	LBNDK3022GEZZ		Tension Band Ass'y	AF	455	NROLM0045GEZZ		T Roller Ass'y	AK
355	LANGA0073GEZZ		Reel Cover Ass'y	AG	456	NDAiV1076GEZZ		S Reel Base Ass'y	AM
356	LANGJ0038GEFW		T Spring Hanging ANG	AC	457	NDAiV1077GEZZ		Tu Reel Base Ass'y	AK
357	MLEVP0302GEZZ		Swing Arm Release Lever	AC	458	MLEVF0526GEZZ		Pinch Lever Ass'y	AP
360	MLEVP0329GEZZ		Eject Lever	AC	459	NBLTT0016GEZZ		Drive Belt	AD
361	MLEVP0296GEZZ		Pinch Drive Lever	AB	461	RMOTM1080GEZZ		L Motor Ass'y	AQ
362	PGIDM0156GEZZ		Guide Rail	AC	462	RMOTV1023GEZZ		Capstan Motor	AY
363	PGIDM0186GEZZ		T Arm Control Lever	AC	463	QSW-R0039GEZZ		Mode SW	AE
			Stopper		465	QPWBH5911GEZZ		LM/Mode FPC	AG
364	NGERH1300GEZZ		Intermediate Gear A Ass'y	AE	466	PDMP-0032GEZZ		Damper	AF
365	NGERH1301GEZZ		Intermediate Gear B Ass'y	AB	470	DDRMV0069GE03		Drum Ass'y	BZ
366	NPLYV0164GEZZ		Intermediate Pulley Ass'y	AC	500	RAMP-0035TAN0		Head Amp PWB Unit	—
367	NPLYV0165GEZZ		Center Pulley Ass'y	AC	501	PSLDM3352TAFW		H/A FPC Shield Plate	AX
369	NGERH1302GEZZ		AHC Cam	AB	502	LANGG9125GEFW		Sensor FPC Cover	AC
370	NGERH1303GEZZ		Coupling Gear	AB	503	ZTAPEZ212010M		Dew FPC Cover	AB
371	NGERH1304GEZZ		Sub Cam	AC	<b>CASSETTE CONTROL PARTS</b>				
372	NGERH1305GEZZ		S Loading Gear	AC	600	CHLDX3093GE01		Cassette Control Ass'y	AT
373	NGERH1306GEZZ		Tu Loading Gear	AC	601	LHLDX3093GEZZ		Housing Ass'y	AT
374	MLEVP0333GEZZ		S Main Brake	AC	602	LANGF9655GEZZ		Top Cover Ass'y	AG
375	MLEVP0309GEZZ		Tu Main Brake	AB	603	MSPRT0434GEFJ		Lock SPR	AB
376	LHLDX1046GEZZ		S Cassette Stay	AC	604	MSPRT0435GEFJ		UP-SPR	AB
377	LHLDZ2024GEZZ		FPC Cover	AB	610	TLABH0589GEZZ		Cassette Control Lock	AB
381	PGIDP0031GEFW		Tu Pole	AD				Label	
382	PGIDS0046GEFW		T Roller Upper Flange	AE	434	LX-BZ3131GEFN		Special Screw M1.4 x L1.6	AA
383	PGIDS0047GEFW		T Roller Bottom Flange	AE					
384	NSFTL0761GEFW		T Roller Inner	AE					
385	PGIDP0042GEFW		S Guide Sleeve	AD					
386	PGIDM0170GEZZ		Slide Chassis Guide	AC					
390	MSPRD0184GEFJ		Swing Arm Release SPR.	AC					
391	MSPRT0417GEFJ		Main Brake SPR.	AB					
392	MSPRT0436GEFW		T Arm SPR.	AB					
393	MSPRD0178GEFJ		Tu Guide Arm SPR.	AB					
394	MSPRD0179GEFJ		Pinch Lever Return SPR.	AB					
395	MSPRD0180GEFJ		S Pressure SPR.	AB					
396	MSPRD0181GEFJ		Tu Pressure SPR.	AB					
397	MSPRC0220GEFJ		Guide Adjustment SPR.	AA					
398	MSPRC0221GEFJ		Drum Fixing SPR.	AA					
399	MSPRP0185GEZZ		PB Guide SPR.	AC					



Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>CABINET PARTS LIST</b>					3-1-6	MSPRP0222TAFJ		VF Diopter Adjusting Spring	AC
1	CCABA6231TAK1		Cabinet A Ass'y	BP	3-1-7	PLNSV0009TAN3		VF Lens	AM
1-1	DCOVA1798TAK2		Battery Cover Service	AQ	3-1-8	PSHEP0245TAZZ		VF Diopter Covering Sheet	AD
1-1-2	JBTN-0349TASA		Battery Lock Button	AE	3-2	GCOVA1857TAKA		VF Cover(Upper)	AL
1-1-3	JKNBP0228TAZZ		Battery Lock	AD	3-3	GCOVA1809TAKA		VF Cover(Lower)	AH
1-1-4	MSPRD0085TAFJ		Battery Lock Spring	AB	3-4	GCOVD1007TAZZ		VF LCD Protection Cover	AF
1-1-5	PSHEP0242TAZZ		Battery Guide Hole Cover	AC	3-5	GCOVD1014TAZZ		VF Slide Protection Cover	AC
1-1-6	PSHEP0243TAZZ		Angle Covering Sheet	AA	3-6	KLMPV0058TAZZ		VF Backlight Unit	AX
1-1-7	TLABH0463TAZZ		Battery Label	AC	3-7	LANGG0047TA00		Stay Cover ANG	AE
1-2	DFTAC1316TAK1		Cassette Lid Service	AS	3-8	LANGK0642TAFW		VF Tilt ANG	AV
1-2-1	GCOVA1818TASA		Power Supply Decoration Cover	AD	3-9	LHLDZ1633TAZZ		VF LCD Holder(Front)	AE
1-2-3	JBTN-0346TASA		Power Supply Lock Button	AD	3-10	LHLDZ1635TAZZ		VF LCD Holder(Rear)	AE
1-2-4	JKNBP0227TASA		Power Supply Knob	AF	3-11	LHLDZ1639TAZZ		VF LCD Holder(Middle)	AE
1-2-5	MSPRC0153TAFJ		Power Supply Lock Spring	AA	3-12	LHLDZ1650TAZZ		VF Diopter Guide Holder(L)	AC
1-2-6	PMLT-0236TAZZ		Dust Protection Sheet B	AC	3-13	LHLDZ1651TAZZ		VF Diopter Guide Holder(R)	AC
1-4	GCOVA1803TASA		AV/S Terminal Cover	AD	3-14	PMLT-0237TAZZ		VF Dust Protection Spacer Front	AC
1-5	GCOVA1851TAKA		Cassette Lid Cover	AL	3-15	PMLT-0238TAZZ		VF Dust Protection Spacer Rear	AC
1-6	JBTN-0347TASA		S/S Button	AH	3-16	PSHEZ0032TAZZ		VF Sliding Sheet	AC
1-7	JBTN-0348TASA		Cassette Lid Lock Button	AD	3-17	RLCDV0068TAZZ		VF LCD Unit	BM
1-8	JKNBP0226TASA		Media Selector Knob	AF	3-18	TLABH0465TAZZ		VF Label(R)	AB
1-9	LANGK0513TAFW		Speaker Fitting	AC	4	CCOVA1794TAK1		Tilt Cover Ass'y	AK
1-10	LANGK0628TA01		Frame Ass'y	AY	4-2	GCOVA1817TASA		R/C Cover	AD
1-11	LANGK0631TAFW		Frame Reinforcing Fitting	AE	5-1	DCOVA1853TAK1		Top Cover Service	AY
1-12	LANGK0632TAFW		SW Fixing Bracket	AF	5-1-2	GCOVA1805TASA		DV Terminal Cover	AK
1-13	LANGK0633TA01		Lid Lock Ass'y	AM	5-1-3	GCOVA1854TAKA		Top Decoration Cover	AL
1-14	LHLDE1004TASA		Strap Holder	AC	5-1-4	GCOVA1819TASA		DV Terminal Cover Hinge	AD
1-15	LHLDZ1656TAZZ		Media Selector Knob Holder	AC	5-1-5	HDECQ0082TASA		Top Grip Decoration	AD
1-16	LHLDZ1628TAZZ		AV/S Terminal Holder	AD	5-1-6	JBTN-0352TASA		Snap Button Rear	AK
1-17	MSPRC0153TAFJ		Power Supply Lock Spring	AA	5-1-7	JBTN-0353TASA		Top Operation Button	AH
1-18	PMLT-0235TAZZ		Dust Protection Sheet A	AE	5-1-8	JKNBP0229TASA		Zoom Lever	AG
1-19	PSHEP0248TAZZ		Covering Sheet	AB	5-1-9	LHLDZ1638TAZZ		Zoom Lever Holder	AD
1-20	PSHEP0253TAZZ		Mechanism Sound Insulation Sheet	AD	5-1-10	QEARP0323TAFW		Snap Earth Plate Rear	AB
1-21	PZETE0050TAZZ		DV Insulation Sheet	AA	5-1-12	QEARP0349TAZZ		DV Sheet	AC
1-22	PZETE0051TAZZ		Main PWB Insulation Sheet	AB	5-2	LANGK0648TAFW		Hot Shoe Fixing ANG	AE
1-23	QSW-Z0370TAZZ		Power Supply S/S Unit	AR	5-3	LHLDZ1637TAZZ		DV Terminal Holder	AD
1-24	QTANZ0149TAZZ		Battery Terminal Unit	AQ	5-4	PSHEP0251TAZZ		Tilt Protection Sheet	AB
1-25	RUNTK0409TAZZ		AV/S Terminal Unit	AT	5-5	PSPAZ0419TAZZ		Sound Insulation Spacer A	AB
1-26	UBNDT0139TASA		Hand Strap	AL	5-6	PSPAZ0422TAZZ		Sound Insulation Spacer D	AC
1-27	VSP0020P-968N		Speaker	AL	5-7	QJAKE0083TAZZ		Hot Shoe Unit	AM
2-1	DCABB6264TAK2		Cabinet B Service	AZ	5-8	QPWBH3227TAZZ		Hot Shoe FPC	AG
2-1-2	GCOVA1860TAKA		Cabinet B Cover	AL	5-9	QSW-Z0368TAZZ		Zoom Unit	AQ
2-1-3	GFTAS1016TAKA		Card Lid	AG	5-10	QSW-Z0373TAZZ		Snap PWB	AK
2-1-4	JBTN-0350TASA		Menu Button	AD	5-11	RUNTK0411TAZZ		DV-232C Unit	AT
2-1-5	JBTN-0351TASA		Snap Button Front	AH	6	CPWBH2925TA01		Head Amp-Main FPC	AR
2-1-6	LANGK0636TAFW		Card Lid Axle Fixing Bracket L	AD	7	CCABC6112TAK1		Lens Cabinet Ass'y	BF
2-1-7	LANGK0637TAFW		Card Lid Axle Fixing Bracket R	AC	7-2	GCOVA3123TASA		Focus Fixing Ring	AR
2-1-8	LANGK0638TAFW		Card Lid Fixing Bracket	AH	7-3	GCOVA3124TASA		Focus Ring	AS
2-1-9	LANGK0639TAFW		Shoulder Belt Fitting	AF	7-4	GCOVA3125TASA		Microphone Cover	AK
2-1-10	MSPRD0086TAFJ		Card Lid Spring	AC	7-5	HiNDP0246TASA		Lens Nameplate	AE
2-1-11	PSPAZ0412TAZZ		LCD Spacer	AA	7-6	LHLDZ1631TAZZ		Focus Detecting Ring	AD
2-1-13	QEARP0312TAZZ		Earth Sheet A	AB	7-7	LHLDZ1632TAZZ		Microphone Holder	AD
2-1-14	QEARP0313TAFW		Earth Plate	AC	7-8	LHLDZ1647TAZZ		Microphone Cover Holder	AD
2-1-15	QEARP0320TAFW		LCD Earth Plate	AC	7-9	PCOV1035TAZZ		Microphone Covering Sheet	AC
2-2	JKNBP0230TASA		Focus Selector Knob	AE	7-10	PSHEP0224TAZZ		Focus Sliding Sheet A	AE
2-3	JKNBP0231TASA		Manual Selector Knob	AE	7-11	PSHEP0225TAZZ		Focus Sliding Sheet B	AE
2-4	LANGK0640TAFW		LCD Tilt Reinforcing Fitting	AG	7-12	PSPAZ0418TAZZ		Microphone Sound Insulation Spacer	AC
2-5	LHLDZ1630TAZZ		Selector Knob Holder	AD	7-13	QEARP0314TAFW		Focus Fixing Ring Earth Plate	AC
2-6	QSW-ZA002WJZZ		Operation Key Unit	AV	7-14	QEARP0315TAZZ		Focus Earth Sheet A	AE
2-7	QSW-Z0371TAZZ		Camera Operation Unit	AZ	7-15	QEARP0346TAFW		Microphone Cover Earth Plate	AB
2-8	PSHEP0255TAZZ		Camera PWB spacer	AA	7-16	QEARP0347TAZZ		Focus Earth Sheet B	AE
2-9	PSPAZ0426TAZZ		JOG Spacer	AA	7-17	RMICC0106TAZZ		Microphone Unit	AQ
2-10	PSPAZ0417TAZZ		PWB Spacer	AA	7-18	RUNTK0410TAZZ		Focus Detecting Sensor	AQ
3-1	DCOVA1793TAK1		VF Diopter Cover Service	AS	8	CHLDZ1625TA01		Lens Holder Ass'y	AM
3-1-2	GCOVA1811TASA		VF Eye Cap	AF	8-1	LANGK0627TAFW		Lens Fixing Bracket	AF
3-1-3	JKNBP0232TAZZ		VF Diopter Knob	AD	8-2	LHLDZ1625TAZZ		Lens Fixing Holder	AF
3-1-4	LHLDZ1636TAZZ		VF Diopter Holder	AD	8-3	PSPAZ0420TAZZ		Sound Insulation Spacer B	AB
3-1-5	MLEVP0049TAZZ		VF Diopter Lever	AD					

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
8-4	PSPAZ0421TAZZ		Sound Insulation Spacer C	AB	O	XiPSF17P03000		M1.7 X 3 Small Screw (Black)	AA
8-5	PSPAZ0422TAZZ		Sound Insulation Spacer D	AC	P	XiPSF17P04000		M1.7 X 4 Small Screw (Black)	AA
9	PLNSA0147TAN1		Lens Unit	BX	Q	XiPSN17P02000		M1.7 X 2 Small Screw (Silver)	AA
10	PMLT-0245TAZZ		Gasket	AD	R	XiPSN17P03000		M1.7 X 3 Small Screw (Silver)	AA
11	PSHEG0059TAZZ		Heat Conducting Sheet C	AF	S	XiPSN17P04000		M1.7 X 4 Small Screw (Silver)	AA
12	PSHEG0060TAZZ		Heat Conducting Sheet D	AH					
13	PSPAZ0421TAZZ		Sound Insulation Spacer C	AB					
14	CANGK0625TA01		Shield Case Rear Ass'y	AM					
14-1	LANGK0625TAFW		Shield Case Rear	AF					
14-2	PSPAZ0406TAZZ		LCD Spacer	AE					
14-3	PTPEH0075TAZZ		LCD Fixing Tape	AE					
15	CANGK0626TA01		Shield Case Front Ass'y	AH					
15-2	PSHEP0240TAZZ		Insulation Sheet Front	AB					
15-3	PSHEP0241TAZZ		Insulation Sheet Rear	AA					
16	DCABE6058TAK3		LCD Cabinet Ass'y	AU					
16-2	GCOVA1855TAKA		LCD Decoration Cover	AG					
16-3	HDECP0098TASA		LCD Nameplate	AF					
16-4	JBTN-0354TASA		LCD Lock Button	AD					
16-5	MSPRD0087TAFJ		LCD Lock Spring	AB					
16-6	NSFTZ0169TAFW		LCD Lock Shaft	AB					
16-7	HBDGB0053TASA		SHARP Badge	AF					
17	CCOVA1797TAK1		Tilt Cover Ass'y	AZ					
17-2	GCOVA1814TAKA		Tilt Cover Lower	AF					
17-3	LANGK0649TAFW		LCD Tilt Hinge	AT					
17-4	PSHEP0239TAZZ		Tilt FPC Insulation Sheet	AA					
17-5	QSW-Z0372TAZZ		Tilt FPC	AT					
18	DUNTK3122QA01		LCD PWB Unit	—					
19	GCOVA1879TAKA		LCD Front Cover	AL					
20	KLMPV0059TAZZ		Backlight	AT					
21	PGIDM0037TAZZ		Light Guide Plate	AG					
22	PMiR-0045TAZZ		Reflection Sheet	AD					
23	PSHEP0044TAZZ		Prism Sheet	AG					
24	PSHEP0045TAZZ		Diffusion Sheet	AD					
25	RLCDV0069TAZZ		LCD Panel	BT					
26	ZTAPEP109020E		Light Guide Plate	AA					
			Retaining Tape						
27	DUNTKB365QA00		Main PWB Unit	—					
28	QPWBH3224TAZZ		Main-Sub 1, 2 FPC	AE					
29	QPWBH3225TAZZ		Main-Sub 3 FPC	AF					
30	LANGK0650TAFW		Sub PWB Fixing Bracket	AE					
31	GCOVA1705TASB		Fitting Cover	AC					
32	LANGT0465TASA		Shoe Fitting	AE					
33	GCOVA1767TASA		Lens Hood	AH					
34	GCOVA1815TASA		Hot Shoe Cover	AD					
35	GCOVA1816TASA		Lithium Battery Storage Lid	AD					
36	GCOVH1270TASA		Lens Cap	AH					
37	TLABMA088WJZZ		Model Label	AD					
40	DUNTK3120QA03		Sub PWB Unit	—					
41	DUNTK3121QA01		Camera PWB Unit	—					
43	TLABZ0636TAZZ		Feature Label	AC					
44	TLABZ0637TAZZ		Feature Label	AC					
46	PSPAZ0438TAZZ		Sheet	AB					
47	TLABH0555TAZZ		Caution Label	AB					
48	TLABS0085TAZZ		Fuse Label	AC					
A	LX-BZ0221TAFD		M1.7 X 3 Small Screw (Silver, Screw-lock)	AB					
B	LX-BZ0232TAFD		Floating Screw	AB					
C	LX-BZ0245TAFF		Floating Screw	AB					
D	LX-BZ3132GEFF		M1.4 X 1.5 Special Screw (Black)	AA					
E	LX-BZ3169GEZZ		M1.4 X 2.5 Small Screw (Black)	AA					
F	LX-HZ0017TAFF		M2 X 8 Tap (Black)	AA					
G	LX-HZ0045TAFN		M2 X 4 Tap (Silver)	AA					
H	LX-HZ0050TAFF		M1.7 X 4 Tap (Black)	AA					
I	LX-HZ0050TAFN		M1.7 X 4 Tap (Silver)	AA					
J	LX-HZ0063TAFF		M1.7 X 6 Tap (Black)	AA					
K	LX-HZ0063TAFN		M1.7 X 6 Tap (Silver)	AA					
L	LX-HZ0075TAFD		M1.7 X 4.5 Special Screw (Colored Zinc)	AA					
M	XiPSC17P05000		M1.7 X 5 Small Screw (Silver)	AA					
N	XiPSF17P02000		M1.7 X 2 Small Screw (Black)	AA					

## CAMERA UNIT PARTS LIST

1	PFiLW0089TAZZ	Crystal Filter	AW
2	PCOVM8016TA00	Dust Protection Rubber	AC
3	VHLiCX286AK-1	CCD Sensor	BT
4	LANGK0607TAFW	CCD Retaining Plate	AC
5	PSLDM3370TAFW	Shield Case B	AC
6	PSHEG0061TAZZ	Heat Conducting Sheet A	AE
7	DUNTK3121QA01	Camera PWB Unit	—
8	CPWBH3087TA01	Camera=Main FPC	AL
9	PSHEG0057TAZZ	Heat Conducting Sheet B	AE
10	PSLDM3369TAMS	Shield Case A	AD
11	LX-HZ0013TAFF	M1.7x6 Tap (Black)	AA
12	XiPSN17P02000	M1.7x2 Small Screw (Silver)	AA

Ref. No.	Part No.	★	Description	Code
<b>SUPPLIED ACCESSORIES</b>				
<b>ACCESSORIES</b>				
△	QACCD0031TAPZ		AC Cable	AK
△	UADP-0333TAZZ		AC Adapter	BG
	CDSKA0080TA01		SD Card(8M)	BF
	GCOVA1767TASA		Lens Hood	AH
	GCOVH1270TASA		Lens Cap	AH
	QCNW-1914TAZZ		PC Cable	BG
	QCNW-1957TAZZ		DC Cable	AT
	QCNW-1979TAZZ		AV Cable	AK
	RMiCC0105TAZZ		Zoom Microphone	BD
	RRMCG0104TASA		Remote Control	AN
	UBATi0052TAZZ		Battery Pack	BG
	UBATL0011TAZZ		Lithium Battery(x2)	AE
	CDSKA0059TA01		CD-ROM	AK
	UBNDS0024TAZZ		Shoulder Strap	AH
	TiNS-6048TAZZ		PC Soft License	AG
	TiNSEA011WJZZ		Operation Manual	AM
	TLABZ0644TAZZ		Blindfold label	AD

<b>ACCESSORIES</b>				
<b>(NOT REPLACEMENT ITEM)</b>				
	TGANE0044TAZZ		Guarantee Card	—
	TLABK0001TAZZ		No. Card(x2)	—

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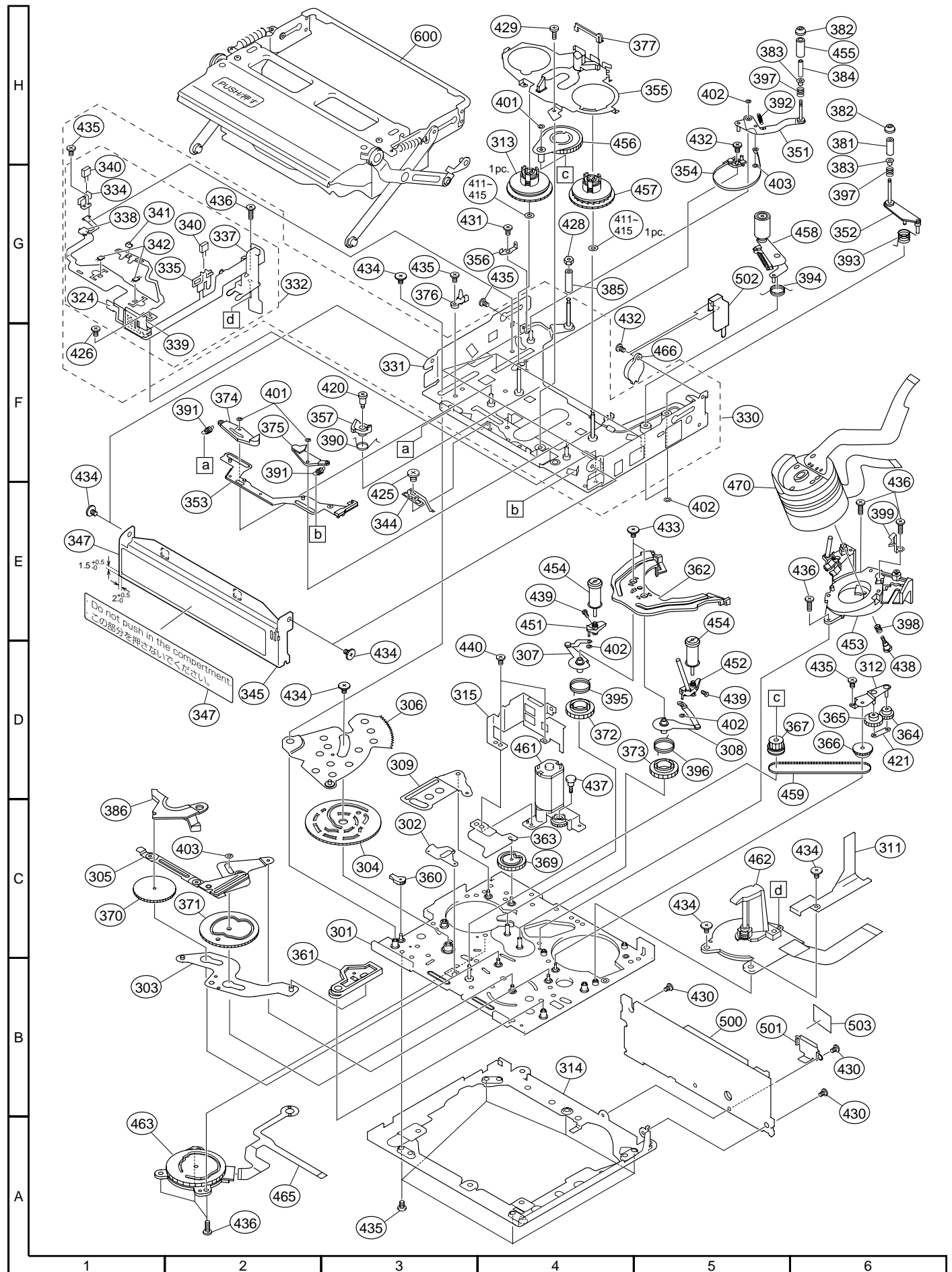
**PACKING PARTS**  
**(NOT REPLACEMENT ITEM)**

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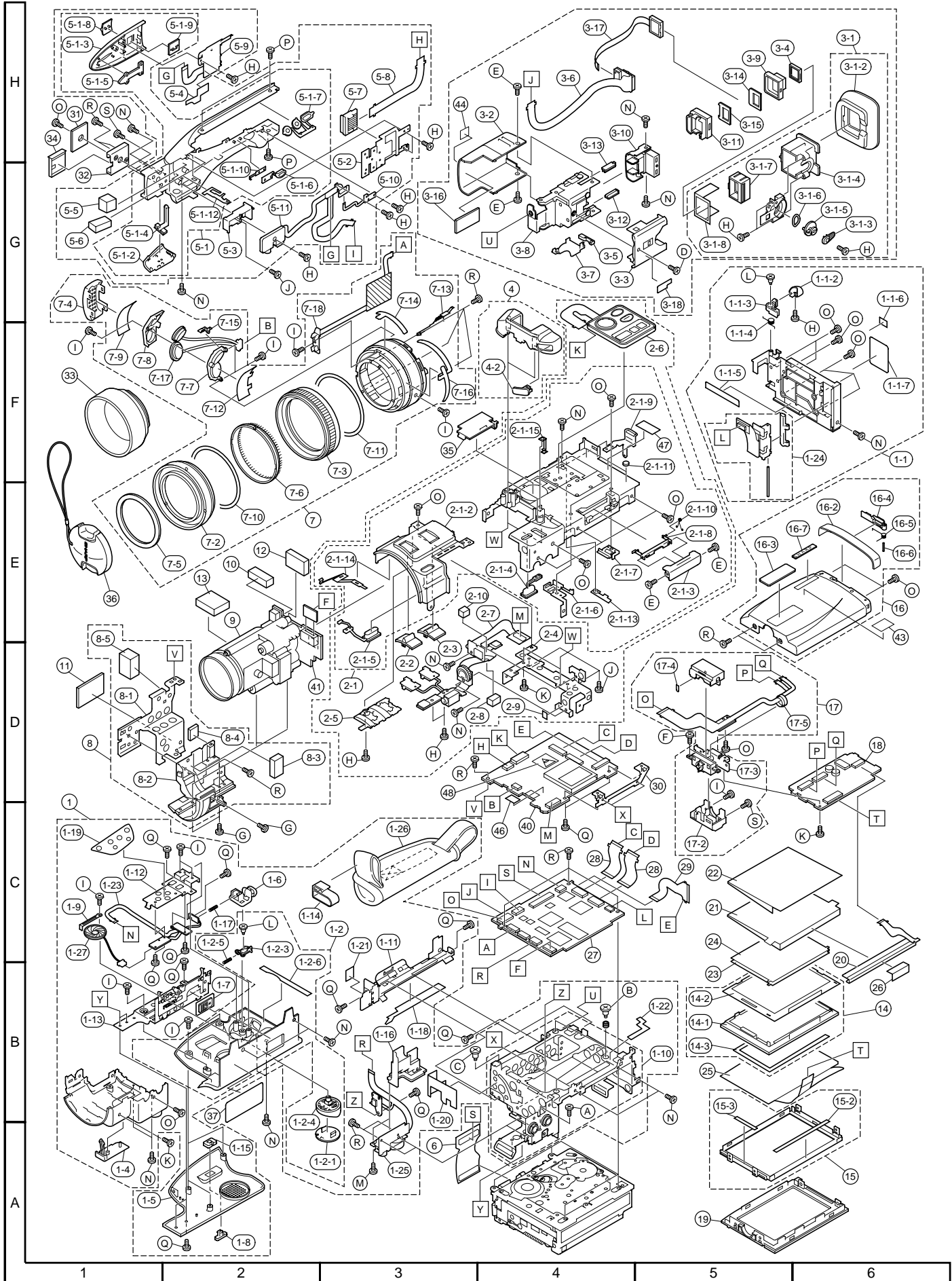
	SPAKCA129WJZZ		Packing Case	—
	SPAKA6413TAZZ		Packing Add.(Bottom)	—
	SPAKA6412TAZZ		Packing Add.(Top)	—
	SPAKF0291TAZZ		AC Adapter Pad	—
	SSAKA0087TAZZ		Wrapping Paper	—
	SPAKP6159TAZZ		Wrapping Paper	—
	SPAKP6108TAZZ		Side Pad	—
	SSAKA0120TAZZ		Polyethylene Bag	—
	SPAKA6417TAZZ		Packing Add.	—

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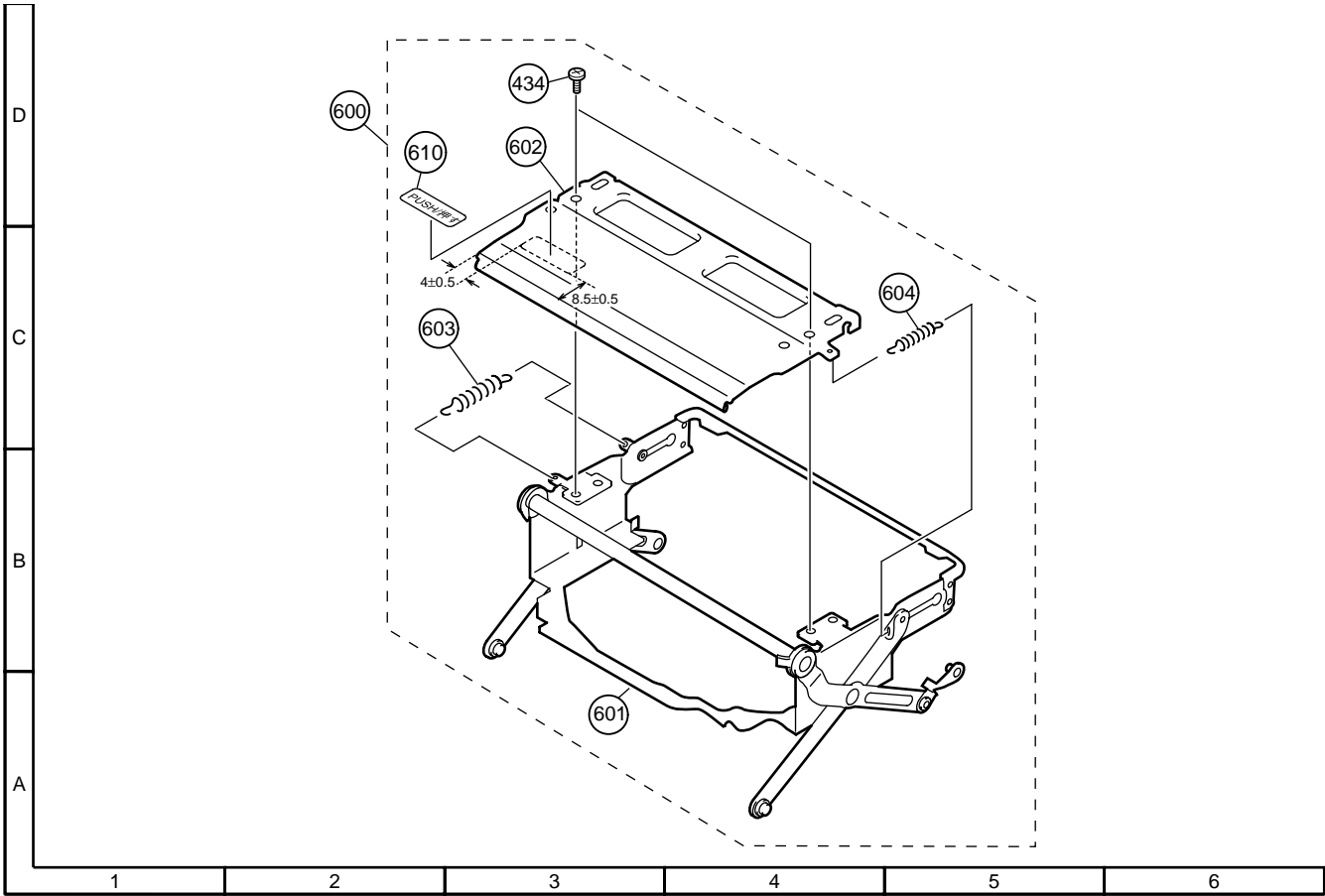
## MECHANISM CHASSIS EXPLODED VIEW



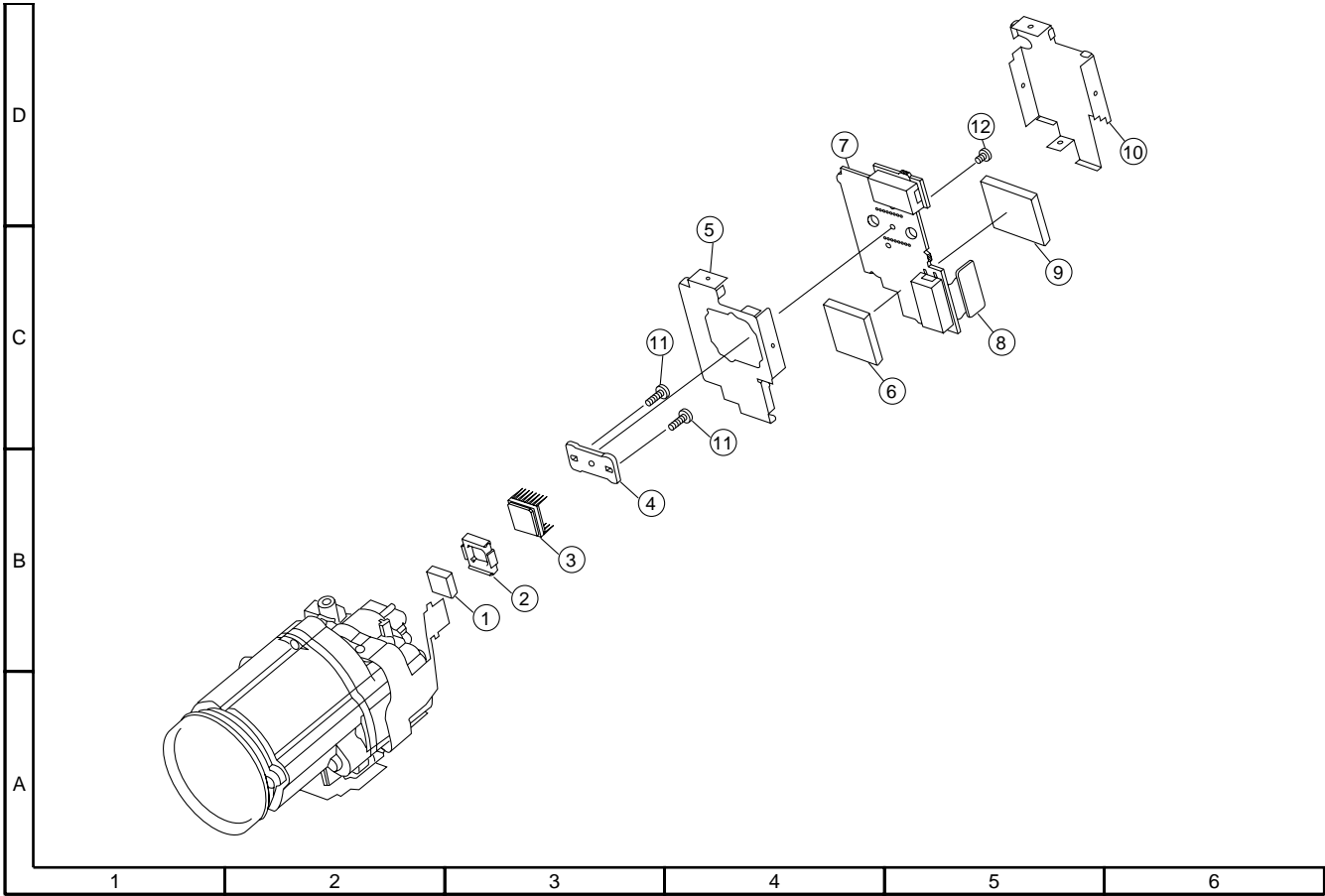
CABINET EXPLODED VIEW



CASSETTE CONTROL EXPLOOD VIEW



CAMERA UNIT EXPLOOD VIEW



## VL-AX1U SERVICE JIG SPECIFICATIONS

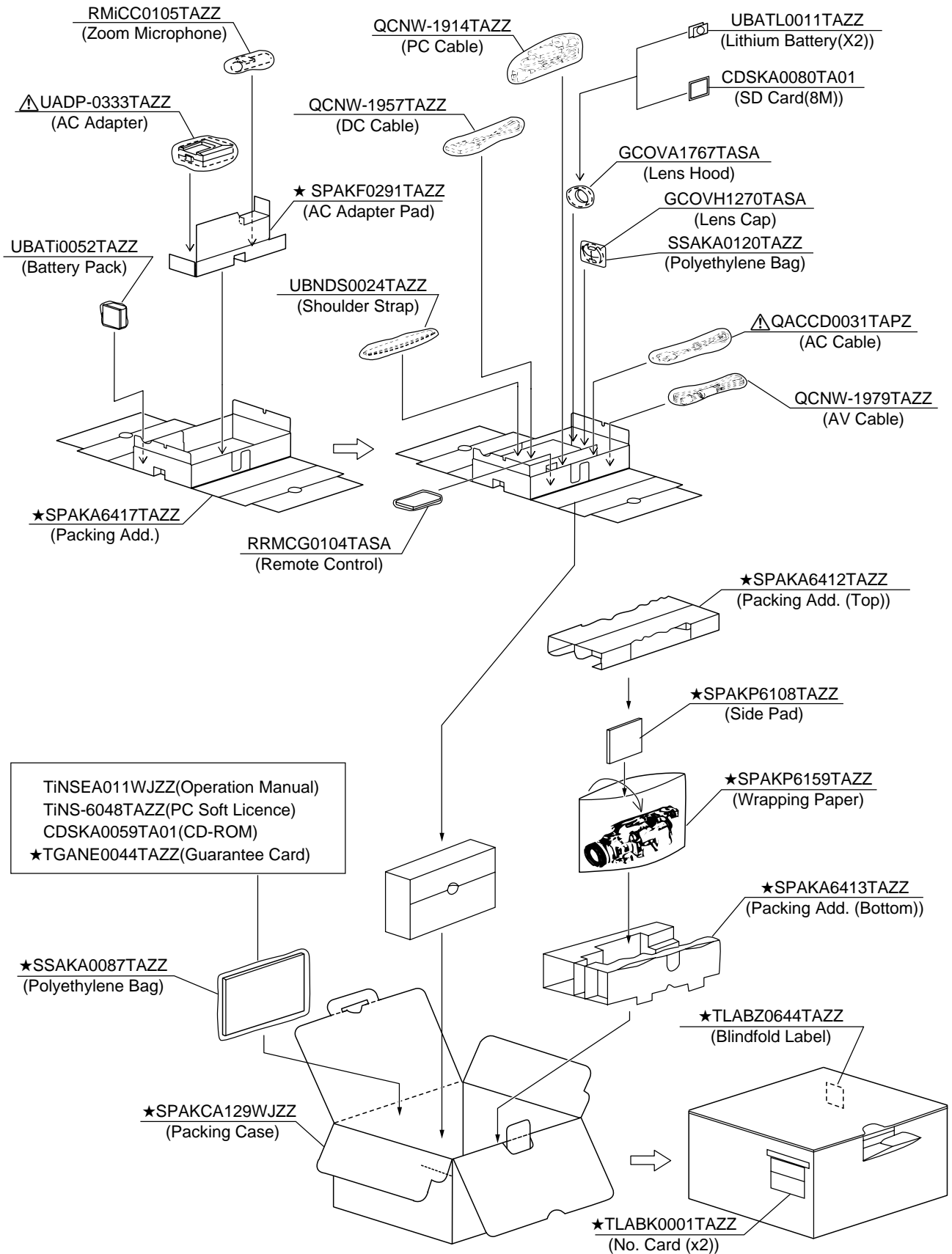
## 1-1. Adjusting jigs for checking the mechanism

No.	Name	New part	Type number, Application	Part code	Code
1	PB-use cassette torque meter		1mN·m/1.5mN·m	9DASD-1015	DB
2	Torque gauge		For use in VS-REW take up torque adjustment	JiGTG0045	CN
3	Torque gauge head		For use with the above torque gauge	9EQTGH-DH5000	BW
4	Tension gauge 4N		For measuring of pinch roller pressure	JiGSG0400	BK
5	Dial tension gauge		PTG-10	9DAPTG-10-10W	CA
6	Torque screwdriver 150mN·m		No. 0 cross bit, No. 00 cross bit	JiGTD1500RTDH	CB
7	Master plane		For checking the reel base height	9EQMP-VLPD1	CL
8	Height adjustment jig		For height adjusting	9DAHG-PD1	BZ
9	Height adjustment screwdriver		For guide roller adjustment. For Tu guide adjustment. For T roller adjustment. Bit shape.	9EQDRIVER-DH5	BC
10	Alignment tape - I		For tape running adjustment	VR3-GAZXS	CF
11	Alignment tape - II		For Switching Point adjustment	VR3-GTZQS	CG
12	For hexagon nut opposite side 3mm bit		For S guide hexagon nut installation.	95CM22001	BL
13	Reel hub for back tension measurement		Refer to Service Manual.	Prepared in the service station.	—
14	String for measuring the pinch roller pressure		Refer to Service Manual.	Prepared in the service station.	—

## 1-2. Parts for periodical inspection and maintenance

No.	Name	New part	Type number, Application	Part code	Code
1	Oil		Cosmo Hydro HV22	9EQ-OiL-HV22	AE
2	Cleaning paper		Dusper Σ (SIGMA) ozu Co., LTD	JiGDUSPER	AP
3	Grease: Moly Coat YM-103		Dow corning	99FGREASE-YM103	AH

## 18. PACKING OF THE SET



MARK ★ Not Replacement Item



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